

Department of Archæology & Historical Research
Jaipur State

ARCHÆOLOGICAL REMAINS
AND
EXCAVATIONS AT BAIRAT
BY
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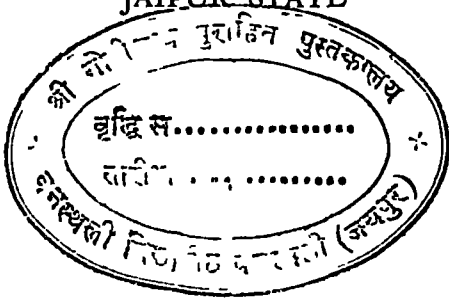
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INTRODUCTION

The Archæological Survey of India has during its existence since 1861, rendered valuable service in the matter of preservation of ancient buildings of great artistic and historical interest throughout the country, in the exploration of numerous buried sites of ancient cities and of religious establishments, and in the discovery and publication of epigraphical material of great value. Some of the Indian States have followed this noble example of the Supreme Government and have maintained separate archæological offices of their own. These are Hyderabad, Mysore, Baroda, Travancore, Gwalior, etc. The rulers of the Jaipur State have for centuries patronized art and science and the five astronomical observatories built by Maharaja Sawai Jai Singhji have won the admiration of visitors from far and near. The antiquities of the State had, however, unfortunately received little attention. The State authorities are, therefore, to be congratulated on their decision to start a small archæological office of their own as a temporary measure in the first instance and it may be hoped that the results achieved during the last ten months will be considered a sufficient justification for the continuance of this office for at least a few years during which period it is expected that not only sufficient material will have been brought together for a first rate Museum of Archæology at Jaipur but valuable light will also have been thrown on the ancient past of this interesting territory. The excavations at Bairat which form the subject of this brochure were undertaken at the express suggestion of the Finance Member, Rai Bahadur Pandit Amarnath Atal, to whom I am deeply indebted for much enlightened interest in these and other tasks undertaken by me.

I have considered it advisable to preface this my first report on archæological work in the State with an introduction embodying a very brief résumé of the researches carried out among the ancient remains of the Jaipur State by Sir A. Cunningham, the first Director-General of Archæology in India, in 1864-65¹; by his assistant Mr A. C. L. Carlile during the cold weather of 1871-72² and by Dr D. R. Bhandarkar, a former Superintendent of Archæology in the Western Circle, during the year 1909-10³. These notes also include such further information as I have myself been able to collect about the monuments in other places than Bairat.

¹ *Archæological Survey Reports*, Vol. II

² *Ibid*, Vol. VI

³ *Annual Progress Report of the Archæological Survey of India*, Western Circle, for the year ending 31st March, 1910

The possibilities of archaeological research in the Jaipur State are very great indeed. In his monumental work, *Mohenjodaro and the Indus Civilization*, Sir John Marshall in drawing attention to the pre-historic antiquities found in certain mounds in Kathiawad, expresses the hope that when a systematic search is instituted the chalcolithic culture of the Indus valley will, probably, be found to extend across Rajputana and down the valleys of the Jumna and the Ganges. A survey of this kind in the Jaipur State is one of the aims I have in view. Here it is interesting to observe that already the numerous portable objects found in the course of my excavations at Bairat include two flakes and fragments of several cores of chert similar to those found at Harappa and Mohenjodaro which augur well for future discovery of such material. The number of sites of the historical period, i.e. those dating from about the 3rd century B C, that await exploration, is very considerable. The few places about which information is available from the researches referred to above are noticed here.

I *Sāmbhar* or *Śākambharī*, the capital of the Chāhamāna or Chauhān kings, Prithvirāja and his predecessors, in the 12th and earlier centuries, and so well noted for its salt lake, possesses some very ancient mounds situated in the vicinity of the fresh water lake known as Naha Sar. These mounds, which had in antiquity been honeycombed with pits excavated by the villagers for old bricks, were partially explored by Mr. Lyon, Assistant Commissioner of Inland Revenue at Sambhar, under the general direction of Surgeon-Major T H Hendley, who read a paper on them entitled 'Buddhist remains near Sāmbhur'¹, before the Royal Asiatic Society in November, 1884.

These excavations were carried down at places to a depth of over 20 feet but are stated to have yielded no important buildings or streets. The portable antiquities, some of which are now kept in a small show-case in the Jaipur Museum, were of a varied nature and included pinnacles of temples or dwelling-houses, beads of faience, beads of carnelian with white geometric patterns burnt into them², bone spikes with sharp points at each end which Colonel Hendley thought might have been used for securing planks of wood together, terracotta figurines of men and animals including one of a monkey seated, as on a tripod, with its tail serving as the third leg of the seat, reels of clay, small coins of copper which, when cleaned, may be found to be punch-marked coins and, lastly, a

¹ *J R I S*, 1881

² Beads with such decoration have been found at Kish in Mesopotamia where they occur in association with antiquities of the pre Sargonic period, at Harappa and Mohenjodaro and numerous other sites in Sind and other parts of India

hemispheric shaped sealing of terracotta with one large face and six smaller facets on the sides. Hendley's conclusion that these antiquities are Buddhist and that the mounds in which they have been found would be found to be the site of an important Buddhist town seems to have little to commend it. On the contrary, the terracotta sealing, which deserves here a somewhat detailed description, provides incontrovertible evidence of their being Brahmanical. The principal impression, on this sealing, displays a sacrificial post (*yūpa*) surrounded by a railing. The upper portion of the post is, in accordance with the rules laid down in the *Śatapatha Brāhmaṇa*, bent down to about the middle of the shaft and has a bifurcated end. Below this is the well-known Ujjain symbol consisting of a cross with balls attached to each arm and on the opposite side the Prakrit legend *Indasamasa*, 'of Indrasarman', in Brāhmī characters of about the 3rd century B.C. Five of the smaller facets of the sealing display the mystic symbol *svastika* while the sixth one shows a triangular pattern with five cross bars. This last device appears to represent the ladder by which the sacrificer and his wife ascended to the top of the *yūpa* and, looking in the different directions, muttered prayers and offered to Prajāpati 17 pieces of salt tied up in *pippala* leaves.

The setting up of *yūpas* in the celebration of *yajñas* is mentioned in the *Atharva Veda*, Kānda XII, Sūkta 1; and several ancient inscriptions on stone and other monuments evidence the performance of such sacrifices down to the 5th or 6th century A.D. The *yūpa* device is also found on the Yaudheya¹ coins of about the beginning of the Christian era and on the Aśvamedha coins of Samudragupta and I am glad to be able to refer to an actual terracotta sealing similar to the one found at Sambhar. This was found many years ago at Sunet near Ludhiana in the Punjab and dates from the Gupta period. It shows a horse standing looking towards a sacrificial post which has a different shape in that it is bent in the middle instead of at the top.²

The mounds at Sambhar deserve careful exploration as they may be expected to yield valuable relics pertaining to the Vedic sacrifice, e.g. stone *yūpas* similar to those found near Mathurā and other antiquities of great interest.

II *Nagar*.—The ancient remains at Nagar, or Karkota Nagar, situated in the territory of the Raja of Uniyara or Omara in the Jaipur State cover an area of about four square miles. They were

¹ Dr B. Sahni, F.R.S. of the Lucknow University recently discovered a collection of terracotta moulds for the casting of the coins of this clan in the mound known as Khokra Kot near Rohtak in the Punjab. The device on these moulds is undoubtedly a *yūpa* and not a tree in a railing.

² *J.R.A.S.*, 1901, page 102.

carefully surveyed by Mr. Carlleyle in 1871-72 but have obviously not been visited by any other archæologist since his time. On a portion of this site, which Mr. Carlleyle believed to have been the site of the local mint of Nagar, he collected over 6,000 copper coins which lay in some places 'as thick as shells on the seashore'. About a third of this number were found by Mr. Carlleyle to be worth keeping and, out of these good pieces again, 400 were stolen from his possession. 110 out of this balance are in the Indian Museum of Calcutta and are described in Dr. Vincent Smith's *Catalogue*, but nobody knows what has become of the remainder. Dr. Smith fervently hoped that some one would take the trouble of visiting the place and collecting other specimens. According to Smith, all these coins with the exception of some 35, which were of outside origin, must have been minted at Nagar itself by the chiefs of the local Mālava tribe, who may not necessarily have been the same as the Mālavas of Dhārā. Mr. Carlleyle found the names of not less than 40 chiefs of this clan on the coins discovered by him; the names read by Smith on the coins now kept in the Indian Museum number only 20. The legends of these coins which include some of the smallest and lightest coins in the world are inscribed in the Brāhmī script of the 2nd century B C. to the 4th century A D. and some of the legends are inscribed in reversed order so that they have to be read from right to left. Some of the names of these Mālava chiefs are also considered to be of foreign origin. A systematic exploration of this site is an urgent desideratum to solve this and other problems connected with this interesting group of coins and the extensive ancient city in which they have been found.

III. *Dausa*, which is known to have been the first capital of the Kachhwaha rulers in the Jaipur State, is situated at the foot of a high hill at a distance of about 32 miles east from the city of Jaipur. The top of the hill is occupied by an irregularly shaped fort which is believed to have been constructed by a tribe of Bargujars from whom it was wrested by the Kachhwaha Prince Dulharaī, when he migrated from Narwar in Gwahor in the beginning of the 12th century A D. In the course of his tour in the Jaipur State in the year referred to above, Mr. Carlleyle found on the sloping ground to the north of the foot of the hill a number of stone circles, one or two of which contained cromlechs, a few cairns and a sepulchral mound of pre-historic date. The cairns were opened by Mr. Carlleyle and yielded some rude stone implements while in the mound he brought to light pottery urns covered with lids and containing human bones, also chert flakes, etc. During my short visit of a single day to Dausa, I had no time to examine these interesting remains, but was able to discover other interesting antiquities which can be assigned to the late mediæval period. These include a

collection of some 40 or 50 fragments of stone images of some of the principal Hindu gods and goddesses, red Karauli stone pilasters adorned with the vase and palmette and other patterns, crocodile-mouthed gargoyles, and a large stone *linga*, whose top alone is visible above the ground, which originally belonged to a Śiva temple which stood on the summit of the hill and whose site is now occupied by a later temple of Nīlakantha Mahādeva standing within a small fortified citadel. One or two guns in the fort bear Nāgarī inscriptions dated in Vikrama Samvat 1849, etc. Another group of finely carved sculptures of about the 12th century A D is worshipped in or built into the front wall of a modern temple known as Mātājī-kā-Mandir. Among these antiquities are a well-preserved image of the Sun, window lintels, etc. A largish mound outside the Mori Darwaza of the fort, which is partly occupied by what is known as Bhaumyaājī-kā-Mahal, deserves excavation. There is also opposite the school building a brick temple of about the 14th century A D similar in style to the one at Bairat to be referred to later on, fragments of other sculptures to the north of the Juma' Masjid and a number of stone pillars of ancient date in the audience hall of the temple of Somanātha on the right side of the road leading to Bharatpur.

IV *Chātsu* —At Chātsu, distant 25 miles from Jaipur, in 1871-72, Mr. Carlleyle discovered an undated stone inscription which was edited by Dr D R Bhandarkar in the *Epigraphia Indica*, Vol XII, pp 13 *seq*. This document records the construction of a temple of Murāri-Vishnu by Bālāditya, a Guhila prince, to commemorate his wedding to a Chāhamāna princess. This stone was found built into the side wall of the steps leading down into the great tank of Guhil Rao to the west of the town of Chātsu. The whole of the eastern portion of this extensive tank is provided with steps built up from the material of the numerous temples with which, like the two similar tanks at Dholka and Viramgam in the Ahmedabad District, this tank was originally surrounded. Mr Carlleyle found only one small temple actually standing in all Chātsu. This, however, is only one of the miniature conical spires from the side of one of the larger temples of Chātsu. Both Mr Carlleyle and Dr Bhandarkar also visited the Jaina temple on the top of the hill known as Shiv Dūngri, situated about two miles west of Chātsu.

The ancient remains of Chātsu deserved a further close study and, I was glad, a small additional grant for trial excavations at this place gave me the much desired opportunity of undertaking this work. The ancient walled city here is practically desolate, only a small portion of it being now inhabited. The city had four gates one of which, known as Kot Darwāza, has alone survived on

the south side. My trial trenches were excavated in different parts of the northern portion of the town and reveal the fact that the whole of the upper portion of the mound was composed of the *débris* accumulated during several centuries past and that the really ancient structural remains lie twelve to thirteen feet below the surface. The outer wall of the city has survived on all four sides and a section of about a hundred feet in length, which I exposed, is found to be standing to a height of about 18 feet from the base and to be no less than eight feet in thickness. There were clear signs of a reconstruction of this wall in about the 14th century A.D., but there is no means of ascertaining when the original wall was built. A *Jama* temple in the same area which appears to date from the late mediæval period contains a large number of *Tīrthankara* images ranging in date from Samvat 1316 to 1680 but it is not known whether they were not imported from other places and what is worse, the inscriptions upon them contain no names of kings. I made a careful examination of the numerous well-carved architectural stones from ancient temples now employed in the *ghāts* around the great tank mentioned above or lying scattered about this town, but the only sculptures I found were a six-armed figure of *Durgā*, another well-carved figure of *Ganapati* and a *Buddha* head which is the only Buddhist object so far noticed at *Chātsu*. A more interesting monument which I discovered in the eastern extension of the city is a temple of the 10th or 11th century A.D. which had been only partially destroyed by the Muslim invaders. Its doorway is decorated with a figure of dancing *Śiva* and the extant portion of its *mandapa*, 30 ft by 16 ft, is supported on well-carved pillars of stone from the *Morandi* quarries situated a few miles from *Chātsu*. No inscriptions contemporary with the original construction of this fane have survived but a *Nāgarī* inscription dated in the year *Vikrama Samvat* 1538 (1481 A.D.), when *Sultān Gyās Dīn* was reigning, presumably provides the date when many of the temples of *Chātsu* were destroyed. This king is undoubtedly identical with *Ghiyāth Shāh* (1469 to 1500 A.D.), the second *Khaljī* king of *Malwa*. The interior of the temple was littered with refuse and rubbish of all kinds which I had cleared away. I also freed the carvings from successive coats of lime to enable the taking of photographs. Over this temple a later temple, known as *Chaturbhujajī-kā-Mandir*, was constructed in *Śaka* year 1542, *Vikrama Samvat* 1677, which is the date inscribed on the principal image in this temple. *Mahārāja Māna Simha* was at that time the ruler of *Jaipur* and the Emperor *Akbar* reigning at *Delhi*.

Mr. Carlleyle had held the view that the temples of *Chātsu* were destroyed first by 'Alā-ud-Dīn *Khaljī* and again by the *Mughal* Emperor *Aurangzeb*. It is, however, more probable, as stated above,

that this wholesale destruction was the work of the king of Malwa named above.' The Persian inscription¹ engraved on the inside of the dome of a small Muhammadan cenotaph, constructed with the spoils of broken temples, records the martyrdom in a holy war of a certain Gurg 'Alī Shāh at Chātsu. The chronogram is unfortunately incomplete, but I have a strong suspicion that the holy war in question refers to Ghriyāth Shāh's invasion of Chātsu. That Chātsu had probably come under Muslim influence before this time, is testified by a fragmentary Persian inscription which I found lying in a deserted mosque in the town. It is dated on the 2nd of Muharram in A.H. 783 (1381 A.D.) and contains the name 'the Old Parganah of Chātsu', but unfortunately the name of the king is missing. Another old temple which may be mentioned here is that of Lakshmī Nārāyana, whose construction was commenced in Śaka 1505 or Vikrama year 1640 and which was consecrated in Vikrama Samvat 1660 when the 'Lord of the land', Rājā Māna Simha was ruling over Jaipur during the reign of the Mughal Emperor Akbar.

At the Jaina temple on the Shiv Dungri hill I have copied all the Nāgarī inscriptions including those on the two sculptured pillars described by Carlleyle and Bhandarkar and which are now kept in the Jaipur Museum. Of these, the pillar of white stone is better preserved and I found that, contrary to Mr. Carlleyle's statement, the labelled figures of the first 95 Jaina pontiffs beginning with Bhadrabāhu are portrayed consecutively on the different sections of the octagonal shaft. The earliest inscription on this pillar states that in Samvat 1706, when Śrī Devendra Kīrtti was in the pontiff's chair, and in the reign of Mahārāja Śrī Jayasimha this 'genealogical column' (Pattāvalī-stambha) was set up in the temple of Nemīnātha at the place known as Dungri, near the town of Champāvati. Five pontiffs that came to the chair in succession after Narendra Kīrtti had their own names and dates inscribed on this pillar, the name and date of the last one being Kshemendra Kīrtti and Samvat 1815 respectively.

Two Pattāvalīs or 'succession lists' of the Dīgambara Jaina pontiffs were published by Dr. Hoernle in the *Indian Antiquary*, Vol. XX, pp. 341 *seq.* The manuscripts upon which these lists are based were written in Samvat 1840 and 1938 respectively. There are a few minor differences between the lists published by Hoernle and that found on the stone obelisk from Shiv Dungri but as the latter is 134 years earlier than the earlier one of the two lists published in the *Indian Antiquary*, the list on the pillar

¹ Edited by Mr. G. Yazdani in his article 'Unpublished Persian inscriptions from the Jaipur State' in the *Epigraphia Indo Moslemica*, 1923-24.

should perhaps be regarded as more reliable. There are in this temple other inscribed Jama obelisks of smaller sizes and bearing dates from Samvat 1556 to 1590. A separate account of this material and the other antiquities at and near Chātsu will be desirable.

V. *Nurai*, a small Rajput town, situated at the foot of a hill some 17 miles south of Chātsu on the road leading to Tonk, does not appear to have been visited by Mr. Carlleyle or any other archaeologist. The town is noted for some pretty hot and cold water springs covered with *ketakī*, *kumudini* and other creepers. This town is said to have been founded by a Naruka Rajput, named Sāhasa Mallajī, and possesses some well-built Chhatrīs or cenotaphs in typical Mughal style. The inscriptions on the memorial slabs are noteworthy for the fact that the *satīs* concerned are, in accordance with ancient Rajput custom, designated by their own family names.

VI. *Rāmgadh*, distant some 20 miles from the city of Jaipur, is supposed to have been the second capital of the Kachhwaha rulers in the Jaipur territory but it is not known when they shifted to this place. A well-preserved Sanskrit inscription¹ engraved on a red sandstone slab, which was removed from Rāmgadh many years ago and placed in the Jaipur Museum (No. 1938) on the 3rd of May, 1936, records the interesting fact that the fort of Rāmgadh which is designated as the 'Defence of Rāmagadha' was caused to be built when 1,669 years of the Vikrama era had elapsed, on Sunday the fifth of the bright fortnight of the month of Phālguna in the Śālvāhana year 1534 (expired) in the reign of Jahāngīr Shāh Salīm, by Mahārājādhirāja Mānasimha, who was 'resplendent with abundant fame acquired from his conquests of the entire territory and of his enemies whom he had overpowered by his prowess'. The building was completed under the control of Purohita Pītāmbara, the son of Padmākara Purohita. The name of the father of Mahārāja Mānasimha is spelt in this inscription as Bhagavamtadāsa. This is also the form found in two Hindi inscriptions dated in the year 34 of the reign of Akbar which are engraved on the temple of Govinda Deva at Brindaban. The name is similarly spelt in an inscription discovered by me on the doorway of the temple of Kalyānarām at Amber and everywhere in the *Akbar Nāmā* of Abul Fazl. The Sanskrit inscription on the temple of Govinda Deva has the form Bhagavaddāsa. The name Bhagwān Dās is only a vulgar form of the Sanskrit name and it is a mistake to suppose that it was borne by a separate prince. A ruined temple known as the temple of Jamvā Mātā, in the picturesque little

¹ This and some forty other inscriptions, which I have copied and deciphered, will be published in detail in a separate memoir.

valley adjoining the Rāmgadh lake, contains a number of stone pillars and pilasters of about the 10th century A D

VII *Amber*.—The city of Amber, the third capital in succession of the Jaipur State, is believed to have been founded in the 10th or 11th century A D An interesting stone inscription of 16 lines now in the Jaipur Museum (No. 1951), which was removed from a Jaina temple known as Sanghvi Jhunta Rai's temple, records the construction of this temple on Wednesday the 10th of the dark fortnight of the month of Phālguna in the Vikrama year 1714 Amber is in this inscription designated as Ambāvati¹ which was the Rājadhānī or capital of the territory named Dhunda or Dhundhāhada, which was adorned with step-wells, wells and tanks and with beautiful gardens replete with fruit-bearing trees of all seasons. This city was beautified with noblemen's mansions and with Jaina temples with golden *kalāśas* The ruler of Dhundhāhada at the time was Mahārāja Jayasimha (Samvat 1678–1724) whose valuable services to the king of Dhili (Aurangzeb) had been rewarded with the grant of 27 towns The temple was built in honour of the Tirthēśvara, Vimalanātha, by Mohana Dāsa of the Khandelval family who was the chief minister of Mahārāja Jayasimha and the Governor of Ambāvati, at the instance of the Jaina pontiff, Devendra-kīrtti who, we know from the inscriptions on the Pattāvalī-stambha from Chātsu, died in Samvat 1722. The gardens, lakes and wells of Amber are well known The temples had, however, received scanty attention. I spent two or three days going round the town and was able, with the help of inscriptions I discovered on them, to determine the dates of five of them The earliest of these epigraphs occurs in a small temple of the Sun, situated on the slope of the hill at the back of the town, which has been much repaired in recent times The stone pillars of the *mandapa* and the ceilings, however, remain unaltered and one of the pillars in the front row bears a two-armed figure of Ganapati, *khatvāṅga* in the right hand and an uncertain object in the left. Above and below this figure is a short inscription of seven lines dated on Friday the 11th of the dark fortnight of Bhādrapada, Samvat 1011 The inscription is badly engraved but appears to record the obeisance of a private individual whose name is illegible but whose father's name appears to read Chāmundahari

The next temple in date, so far as is, at present, known is that of Lakshmi Nārāyana, attributed to Bālābāi, a queen of the Kachhwaha Mahārāja Prithvi Rāja A short inscription of two lines engraved above the figure of a *dvārapāla* on the left jamb of

¹ General Sir A. Cunningham derives the name Amber from Ambikēśvara, the name of a large temple at Amber

the sanctum contains a date in Samvat 15x5. Unfortunately the 'tens' digit is not readable. The temple of Jagat Śiromani is, I gather from Rao Bahadur Thakur Narendra Singh of Jobner, attributed to Kanwar Jagat Singh (born Samvat 1625 ; died Samvat 1656), who was the first son of Mahārāja Man Singh (A.D. 1590 to 1615), and grandson of Mahārāja Bhāra Malla (A.D. 1548 to 1578). The figure of Garuda worshipped in the Chhatrī in front of this temple is, however, dated the 7th of the bright fortnight of Phāgun in the Samvat year 1611. This date falls in the reign of Bhāra Malla and the temple must have been originally built in the reign of that ruler and perhaps renovated by Kanwar Jagat Singh.

The temple of Kalyānarājī has been freed from fallen débris and other rubbish, and a short inscription discovered on the finely carved doorway of its sanctum in the course of the scraping off of lime plaster. It is now definitely ascertained that this temple (*piāsāda*) was built by a Purohita named Kānhada on the 2nd of the dark fortnight of Mārga-śīrsha in the year Vikrama Samvat 1631 in the reign of Bhagavata Dāsa in the reign of Akbar.

Another noteworthy monument at Amber is a white marble *torana* in the temple of Narasimha in the Purāna Mahal in which the Mahārājas of Jaipur continue to be installed to the Gaddi and where their marriage rites are celebrated. The inner face of the north pillar of this *torana* bears a Sanskrit inscription which states that on Thursday, the 8th of the dark fortnight of Phālguna, in the Samvat year 1702, Śrī Damayantī, of the Sisaudanī family, the mother of Mahārāja Jaya Simha (Samvat 1678 to 1724) made a swing (*dola*) in honour of Krishna, the son of Yaśodā.

A group of Chhatris or cenotaphs of the past rulers of Jaipur, situated just outside the town of Amber, includes some very well-built structures in Mughal style. Unfortunately they contain no inscriptions and the names of the rulers cannot at present be ascertained. During the period under report the grounds around the Chhatris were freed from débris and levelled up and an estimate for further urgent repairs has been submitted to the Finance Member.

VIII. *Moroli, Tehsil Sikrai* —On a mound or hill, known as Bundwali Dugrī, a few *chamārs* of village Moroli found in 1933 some gold coins, out of which 39 complete pieces, one half of another and some gold were recovered from the finders and submitted to the Mahakma Khas. These were examined by Rai Bahadur Amarnath Atal and identified as coins of Chandragupta I, Samudragupta and Chandragupta II. Three of them were placed as exhibits in the Jaipur Museum and the others deposited in the Kapardwara or Reserve Treasury of the State. It now appears that a part of this treasure had remained in the possession of the discoverers and four other pieces of the collection were recovered recently. I have

examined these and also the three kept in the Museum and hope that it may be possible to explore the area where these coins were found

Besides the few places of archæological interest mentioned above, there are many others awaiting attention, e g Todaraisingh, 45 miles south-west from Châtsu, where several important inscriptions of the time of the Kachhwaha rulers remain unpublished, Visalpur, 7 miles south-west by south from Toda, which was founded by Visaladeva of the Chauhân dynasty; Khandela, where there is an early Brāhmī inscription, etc I am informed that, besides the 10th century sculptures removed from the Harshnath hill, there are in the newly started museum at Sikar a very large collection of punch-marked coins requiring careful study

BAIRAT.

Bairat is the headquarters of a tehsil in the Jaipur State and now easily accessible by a fine metalled road which connects Delhi with Jaipur, the distance from the latter being 52 miles. Tradition identifies this town with Virātapura, the capital of Virāta, king of the Matsya country, at whose capital the five Pāṇḍava heroes and their spouse Draupadī passed in concealment the 13th year of their exile. The ancient remains of Bairat were visited by Cunningham in the year 1864-65 and by his assistant, Mr. Carleyle, in the year 1871-72 (vide *Archæological Survey Reports*, Vols. II and VI), both of whom have left detailed accounts of what they saw and of the legends connected with the place. Bairat was visited by Dr. D. R. Bhandarkar during the year 1909-10 (vide *Progress Report of the Archæological Survey of India, Western Circle*, for the year ending 31st March, 1910), but by no other archæologist during the last 26 years.

The present town of Bairat stands in the midst of a valley about 5 miles in length from east to west, by 3 to 4 miles in width, which is surrounded by three concentric ranges of hills, the outermost being the highest and the innermost the lowest. The Jaipur-Delhi road enters the valley through a narrow pass at the north-west corner and the area is drained by two rivulets, the Bairat Nala, which runs northward to join the Ban Ganga river and by the Bandrol Nala on the south side. The ancient route to Jaipur left the valley on the south-west by a flagged ramp along the foot of the hill known as Bījak-kī-Pahārī, which was the main scene of my operations during the last cold weather. The innermost range comprises many flat-topped hills but, unlike those around the ancient city of Taxila, few of them have any remains of antiquity. Thus the only buildings on the hill immediately to the east of the Bījak-kī-Pahārī, which is locally known as Mahādevajī-kī-Dungri, are a gateway of the late Mughal period giving access to a rock-cut tank, a modern temple in which a water-worn block of stone is worshipped as Ganapati, a small cavern used as a shrine, a large reservoir dammed by a masonry wall and a Chhatrī on the summit. This latter structure contains an inscription of Samvat 1733, the 5th of the bright fortnight of Māgha which records the installation of the foot-prints of a certain Chuhavāna or Chauhān. Nor does the more prominent hill known as the Bhīmji-kī-Dungri, situated about a mile to the north-east of the town of Bairat, boast of any ancient remains, though a large cavern is here shown as the very abode of Bhīma, the second Pāṇḍava brother and a long deep cleft

near it where this hero kicked water up to the surface for the benefit of his mother. A fair is held here on the 2nd days of the bright fortnights of the months of Bhādiapada and Māgha. It was on a large rock at the foot of this hill that Mr. Carlleyle discovered the now well-known Banat version of the Rupnath and Sahasram edicts of Aśoka. The surface of the rock was so weather worn and rough that only the keenest observer could have discerned the existence of an exceedingly defaced inscription upon it. In ancient times a wide and well-chiselled rocky spur, immediately to the west of this inscribed rock, gave access to the top of the hill. It has, however, been in disuse for centuries and the hill is now ascended by a narrow track further west.

Brick Temple—A small brick temple (Plate I, a) noticed by Mr. Carlleyle on the eastern edge of Bhīmji-kī-Dungri or the Pandus' hill, as he designated it, was freed from débris in the course of my stay at Banat. It yielded a few fragments of stone images of no special interest. Mr. Carlleyle considered this structure to be a very ancient building. I myself think that it cannot be earlier than the 14th or 15th century A. D. To about the same period should be assigned the massive masonry dam which is built across the Bairat nala not far from this temple.

Cremation Ground—The area to the east of this rivulet has for centuries been the cremation ground of the Bairat town. Here there are several well-built Chhatris to commemorate the immolation of devoted wives on the pyres of their deceased husbands. Each one of these Chhatris has its own inscribed and figured stone tablet and I was able to distinguish two distinct types among these memorials. In one case the deceased husband appears as riding a horse which is preceded by his wife or wives. In the other case the memorial plaque exhibits the Sati standing, holding her deceased husband between her hands, ready to jump into the blazing pile. I quote here as a specimen of the epitaphs employed the inscription on one of these tablets:—

- 1 1 ॥ संवत् १७४३ वरष पोह सुदी
- 1 2. ५ पाहे छौतरमल टोडर को बेटो घ-
1. 3 गीया का पोता देवलोक पधरा
- 1 4 जीन के सग लाडो जमना मोहन
1. 5. को पधान भोडाला को बेटो स-
1. 6 तो ऊई : छतरौ सावलदास पम-
- 1 7. राज के बेटे छौतरमल के [भ]तीजे
1. 8. करौ : जाती का बीरामख गोड : स-
- 1 9. सन हरीतवाल उदरा जयौण
1. 10. वचै जह्नै राम राम वचण

Translations.

'Om Rāma is true. In the Samvat year 1743, on the 5th of the bright fortnight of Pausha, Pānde Chhītar Mal, the son of Todar and the grandson of Dhanyā, proceeded to heaven. In his company his widow Jamnā, who was the daughter of Mohana, a minister of Jhodālā, became Satī. This Chhatrī was built by Sāval Dās, son of Pamrāj and nephew of Chhītar Mal who was a Gauda Brāhmana and of the Harītavāla śāsana'. Dr Bhandarkar who summarized the contents of this inscription at p. 46 of the *Progress Report of the Archaeological Survey of India, Western Circle*, referred to above, adds that the Sāval Dās referred to was granted the title of *singh* and the village of Pāpdi as a jagir by the Muhammadan Emperor Naurang Shah who is generally identified with the Mughal Emperor Aurangzeb.

'*Īdgāh*.—An ancient building in this neighbourhood which has escaped the notice of previous writers is the 'Īdgāh near the village of Pāpdi at the north-west corner of the valley in which Barrat is situated. This, as usual, is an open enclosure surrounded by a high wall with hexagonal masonry pillars at the corners. A white marble slab built into the back wall above the prayer niche bears the following Persian inscription:—

Text

- 1 1 در زمان شاه دور الدین که تا دور زمان
عرصه ایام را فرمان او مطلوب شد -
- 1 2 ساخت در بیرات و الا حواجه ار دهر نواب
عیدگاه خوش که دور دیدةها مرعوب شد -
- 1 3 کاتب تعدیر در گوش خلانق کعب اردین
تا اند در نام او دیکوئی و کتاب شد -
- 1 4 سال تاریخ تمامش چون امانی ...
کعب معمار تفکر عیدگاه خوب شد -

This document purports to state that in the reign of the king Nūru-d-Dīn, a man named Mullā Khwāja built at Barrat for his welfare this beautiful 'Īdgāh which gladdened the eyes of the on-lookers. The date of construction is supplied by a chronogram which means 'The 'Īdgāh has been finely built' and works to A.H. 1022= 1613 A D. This date falls in the reign of Nūru-d-Dīn Jahāngīr, the

son of Akbar Shāh and this, I have no doubt, is the king intended. As we are aware, a mint was started at Bairat by Akbar and copper coins of Jahāngīr, Shāh Jahān and Aurangzeb bearing the mint name of Bairat are well known. The site of this mint is pointed out in the middle of the present town. It is a large walled enclosure occupying the loftiest portion of the mound on which the town is situated. The bulk of the nodules and drops of copper slag, which are found in such abundance all over the town, must have been due partly to the smelting of copper for the making of coins in this mint.

Another building of this late period is a large and well-built Mughal gateway, two cupolas on the upper storey of which bear stucco paintings depicting legendary scenes from the Sanskrit epics and scenes from the Mughal Court, e.g. the reception of Mahārāja Māna Simha by the Emperor Akbar, when he was out on a hunting excursion to the Jaipur territory. Not far from this is a Mughal garden with a rectangular pavilion facing north and supported on tapering marble pillars and plastered brick pilasters. In front of this pavilion is a fountain tank which was fed in the usual way from a high level reservoir attached to a well. Opposite to the Mughal gateway mentioned above is a garden known as the Jaina Bagh which contains a number of funeral Chhatris. One of these contains the *charana-pādukā* of a Jaina teacher Lalitakīrtti of the Ka . . . *sangha*, the Prakara *gana* and the Māthura *gachchha*, who died in the Vikrama year 1851. The Chhatrī adjoining this is built over the remains of Lalitakīrtti's disciple and successor, Pandita Sadāsukha, who died in Samvat 1937. This garden at Bairat is stated, in the latter inscription, to have been made by Rishabhādāsa.

The extensive and high mound on which the town of Bairat stands would, if it was at all possible to excavate any portions of it, reveal strata upon strata of ancient buildings and sculptures, inscriptions and other antiquities of all kinds. The only ancient buildings that have survived above the ground are a plain little mosque of Hīrī *san* 895 and a Jaina temple of the time of Akbar. A slab over the central arch of the prayer chamber of this mosque contains the following:—

1 1 لا اله الا الله محمد الرسول الله -

1 2 تعمیر مسجد ار سید ملوک علی موحی -

1. 3. سنه ۱۶ عالم شاه مطابق سنه ۸۹۵ هجری -

The king mentioned in this inscription must be 'Alāu-d-Dīn 'Ālam Shāh, the last Sayyid king of Delhi, who died at Badaun in A H 883 (A D 1478).

The *Jaina temple* (Plate I, b) is situated in the neighbourhood of the tehsil and consists of a sanctum preceded by a spacious Sabhā-mandapa and surrounded by a broad circumambulatory passage on the other three sides. There is an oblong open courtyard surrounded by a high wall and a beautifully carved pillared portico in front of the entrance on the east. In the south wall of the courtyard on the inside is built a large inscribed slab which was first noticed by Dr Bhandarkar (vide his report referred to above). The inscription has not, however, been edited in detail. The epigraph consists of 40 lines, and is defaced in several places. The object of the inscription briefly is to record that one Indrarāja, who was a Śrīmāla by caste and of the Rākmāna Gotra caused images to be made of three Tīrthankaras, i.e. a stone image of Pārśvanātha in the name of his father, another of copper of Chandraprabha in his own name, a third of Rishabhadeva in the name of his brother Ajayarāja and placed them along with an image of Vimalanātha, who is described here as the principal pontiff, in a temple designated Indravihāra with the alternative name of Mahodayaprāsāda which he had himself constructed at Vairāta (वरराट) at a considerable expense. The actual consecration was performed by Śrī Hīravijaya Sūri with the assistance of his disciple Kalyānavijaya Gaṇi who was 'an adept in the art of sowing the seed of spiritual knowledge in the sanctified field of the minds of pious men'. The date of this pious act was Sunday, the 2nd of the bright fortnight of Phālguna in the Śaka year 1509 in the reign of the Mughal Emperor Akbar. The corresponding Vikrama year which was also given is now completely effaced. Lines 3 to 11 constitute a eulogy of Akbar who had illuminated the circle of the four directions by means of his prowess, who had dispelled the darkness in the shape of the crowd of his adversaries and had attained the high standard of the fame of ancient kings like Nala, Rāmachandra, Yudhishtira and Vikramāditya. This king had been so impressed and moved to mercy by the clever expounding of piety by Śrī Hīravijaya Sūri that he granted security of life (*amāri*)¹ to animals of all kinds for 106 days in the year for all time and in all parts of his kingdom namely on 18 days on account of the Paryushana fast, for 40 days in celebration of his birthday and on the 48 Sundays in the year. Another passage in the inscription supplies a genealogical account of the donor Indrarāja and yet another of the pontiff Hīravijaya Sūri. We are further informed that this pontiff was the recipient of the renowned title of 'universal teacher', a collection of books and amnesty for prisoners from 'Jalālu-d-Dīn Akbar, the son of Humāyun, whose feet were adored

¹ This order prohibiting slaughter of animals was issued in A D 1582. Vide Smith, *Albar the Great Mogul*, p. 107

by the kings of Kashmir, Kāmarūpa, . . . , Kābul, Badakshān, Dhili, Marusthali (Marwar), Gurjaratrā, Mālava', etc. It is interesting to note here that this visit of Śrī Hīravijaya Sūri to the Emperor Akbar at Fathpur Sikri and the consequent promulgation of a Farmān prohibiting the slaughter of animals on certain dates in the year is also graphically described in the Mahākāvya named *Hīra-saubhāgyam* of Devavīmala Gani which contains a poetical account of the life of this well-known teacher. The enumeration of the dates of prohibition, however, differs in some details from that given in the Bairat inscription. Verses 261 and 263 of Canto 14 of this work also mention the construction of Indrarāja's temple at Bairat and its consecration by Śrī Hīravijaya Sūri at the invitation of Indrarāja. The date of the Mahākāvya is not known. It is now clear that it must have been composed a good deal after the date of the Bairat inscription.

Bijak-kī-Pahārī.—As stated by Cunningham, the hill known as Bijak-kī-Pahārī or the 'inscription hill' forms a conspicuous object at the south-west corner of the valley of Bairat and cannot be missed by visitors on approaching the valley through the Bhilwari Ghati on the west. The hill is composed of enormous blocks of grey granite of a friable nature, with thick veins of felspar which dissolves and causes the blocks to split in the course of time. The hill is about three-fourths of a mile in circuit round its base. Between this hill and the middle range of hills, referred to above, is a small narrow valley dotted with roughly built stone platforms surrounded, along the edges, by walls of unhewn or irregularly cut boulders and levelled at top with thick layers of fine red gravel which is so abundant among these hills. These platforms must originally have supported some kind of dwellings which have now disappeared. I examined two of them on the southern spur of the Bijak-kī-Pahārī, and found a small fine chert flake (Plate IX, *k*) and potsherds in one of them and an ancient brick wall running east to west, the tall stem of a pottery offertory dish and an incense coin in the other.

The top of the Bijak-kī-Pahārī affords a picturesque view of the entire valley of Bairat, with the Bhīmji-kī-Dungri hill and the monuments around it on the north and a perfectly level plain which surrounds the lofty town on all sides. Behind him the spectator sees the comparatively high hills in which have, to this day, survived the deep shafts from which copper ore was quarried in ancient times and of which a special mention is made by Abu-l-Fazl in his *Āin-i-Akbarī*. At the eastern edge of the summit of the hill is found the colossal block of granite known as the 'Top' or cannon, 73 feet in length, with its southern end elevated some 14 feet above the surface, under which a small chamber has been constructed in modern times to serve as a shrine of Hanuman.

Bairat-Calcutta Edict—It was near this shrine beneath the large boulder. Dr Bhandarkar was informed, that the stone bearing the so-called Bhābrū Rock Edict was found by Captam Burt in 1840, and transferred to the Museum of the Asiatic Society of Bengal where it has been preserved since that time. This stone (Plate II) is an irregularly shaped block of grey granite, of the kind so abundant at Bairat and measuring about two feet in length, the same in width and a foot and a half in thickness. It was for a long time wrongly believed that this edict had been found at Bhābrū, distant 12 miles in a direct line to the north of Bairat. A strong objection to the Bhābrū origin of this edict was the absence of any ancient remains, except those of modern dwellings on the slopes of the hill behind this village, or in the neighbourhood of it. There was on the other hand at least one other Aśoka edict *in situ* at Bairat and the important Asokan relics that have now been brought to light by my excavations on the Bījāk-kī-Pahārī finally dispel any possible doubt, that may still have existed, as to the edict in question having been discovered on this hill.

This edict is of special importance for, as pointed out by Dr. Bimala Churn Law, it is the only known edict of Aśoka which is inscribed on a *stone slab* (*śilā-phalaka*) as distinguished from a stone pillar (*śilā-thamba*), etc. This edict also provides definite proof of Aśoka's faith in the Buddhist religion and his consequent exhortation to monks and nuns and to laymen and lay-women to listen to and to study seven select passages from the Buddhist scriptures, for which he himself felt a special preference, as being most conducive to the continued prosperity of the Law of Piety promulgated by the Buddha. Four of these selections were identified long ago by Prof. Rhys Davids and other scholars¹ with (1) the Mumsutta, No. 12 of the *Sutta Nipāta*, (2) the *Upatissa-Pañho*, i.e. Sāriputta's question to Assaji which led to the former's conversion to the Buddhist faith, (3) the *Anāgatabhayāni*, 'Disasters to come', i.e. the ten dangers happening to hermits, like corruptions in the doctrine and discipline from incompetent and untrained men among the members of the Order, and (4) the *Rāhulovāda Sutta* in Pāli, which constitutes an Exhortation to Rāhula, the son of the great Teacher on the subject of falsehood (*Maṃphima-Nikāya*, Sutta 61). The difficulty in the identification arises from the titles of the passages in question adopted by Aśoka and the absence of an authoritative classification of the Buddha's teachings in the time of that emperor.

¹ *Journal of the Pali Text Society*, 1846, pp. 93 to 98 and the *Indian Antiquary*, XLI, p. 10

EXCAVATIONS.

The ancient remains on the Bījak-kī-Pahārī are distributed on two distinct platforms, the western one of which is found, after excavation, to be 30 feet higher than the other. Both these platforms were on my arrival found to be completely enveloped in jungle and cut up with trenches excavated, according to Sir A. Cunningham, by His late Highness Maharaja Ramsingh (1835-80) and, according to Dr. D. R. Bhandarkar by a Qiladar named Kitāji Khāmgarot in 1845. My enquiries at the Secretariat Offices of the State have failed to bring to light any record of the operations. Nor is there any information available regarding the gold casket which was stated to have been found in that excavation. The bricks with which the hill was covered at Sir A. Cunningham's visit had long since been carried away and I have myself seen several buildings in the town of Bairat constructed wholly with this material. Some of these bricks had found their way to more distant places. Thus five well-preserved specimens marked, as usual, with traced finger marks are being worshipped in a temple of the *chamārs* at the village of Bhilwari on the road to Jaipur. Heaps of boulders and the excavated earth were, however, found all over the site and these had to be cleared away and the jungle cut down before any excavation could be started. A convenient spot for the commencement of the operations was found on the east of the upper platform where a rough pile of boulders indicated the existence of a massive retaining wall. Large portions of this wall have survived all round the platform except at places where colossal blocks of stone occurred along the edge, and rendered such protection unnecessary. The width of this wall averages three to four feet though at the base it may be much greater. A similar irregularly shaped wall was found around the lower terrace.

An interesting feature of the upper terrace that came to light early during the excavation was the discovery of what must have been a broad staircase to give access to the top, though all the steps had perished. In its upper portion this staircase is flanked on the south side by a colossal rock, but there is a well-built platform, 20 feet long by 12 feet wide and 4 feet 5 inches high, on the other side. It is composed of bricks of unusually large size, measuring 2 feet 7 inches long by 1 foot 4 inches wide and about 3 inches in thickness giving a ratio of about two widths to the length. The same ratio characterizes the bulk of the other bricks used on this site which are $20'' \times \text{about } 10\frac{1}{2}'' \times 2\frac{3}{4}''$. Bricks on other early sites, apart of course from those of the Indus Valley, have a very incon-

venient proportion ranging from 3 : 2 to 5 . 4 The bricks under comment are, as usual with bricks of this early period, made of a very coarse kind of clay mixed with chopped straw or husk of grain.

To judge from the height of the upper platform, there must have been two or three other landings or a plain ramp composed of stone rubble The lower terrace was also provided on the east side with a staircase flanked in the same fashion, i e by a massive rock on one side and a brick platform on the other. Both these staircases were buried deep under débris at Cunningham's visit and were not seen by him. He, therefore, located the main approach to this establishment on the south side of the upper platform where he saw the remains of a large entrance with a flight of stone steps. No such remains have survived in the position indicated, although a long projecting spur of the hill on that side, which is protected about the lower reaches by rubble walls, would have afforded a very likely site for a second approach

The Monastery—As to the actual buildings on this upper platform, Sir A Cunningham thought that the large mass of rocks in the centre must have been the core around which a brick *stūpa* had been constructed and that the runs of brick walls around the *stūpa* formed the chambers of the resident monks of this monastery Monasteries with *stūpas* in their central open courtyards did not come into vogue until the mediæval period ; one well-known example of this type is the large monastery at Paharpur in the Rajshahi district of Bengal Cunningham's suggestion is, however, untenable for the reason that there is not space enough on this platform for the stupendous *stūpa* that would have been needed to cover such a large mass of rocks These rocks are six in number, the largest of which, measuring some 30 feet from north to south by 28 feet wide, is balanced upon four others All these together with the sixth, lying apart on the west side, obviously formed part of one and the same rock which stood on one end with the other end elevated in the air in the fashion of the rock known as ' Top ', on the east edge of the hill to which a reference has already been made The fractured sides of these separate sections seem to leave no doubt as to the correctness of this suggestion The approximate date of the splitting of this colossal boulder will be guessed from the fact that some of these broken blocks lie upon the brick runs of the monastery around them As Mr. Carlleyle was sure that a gold casket had been found in the previous excavation in this area, I cleared away the débris and found, cut into the bed of the rock beneath, an irregularly shaped chamber about 8 feet in diameter by 5 feet deep. It was carefully examined but yielded no relics except brickbats and potsherds

The brick remains on this platform were found to have been so

thoroughly devastated by the previous excavators, referred to above, and the excavated material so completely ransacked by the villagers that the task of understanding the arrangement of these remains was exceedingly difficult. This difficulty was aggravated by the circumstance that, during the three centuries that this establishment was in existence, it had been renovated or rebuilt two or three times. The one fact that was clear from the outset, however, was that the building, we were concerned with, was a kind of monastery, though of a much more elaborate type than those brought to light on other Buddhist sites. The best preserved portion of this monastery was that on the east side (Plate III, *a*), where a double row of six to seven cells has remained. These cells are alternately of larger and smaller sizes, the larger ones being each just big enough to accommodate a single monk or nun. The bricks used in the construction of these cells and other parts of the monastery measure 20" by $9\frac{3}{4}$ " by $2\frac{3}{4}$ " and are, as was usual in this early period, laid in clay mortar. The same is the case in other brick structures brought to light on this site. The walls are about 20 inches thick, equal to one length or two widths of the bricks, which are laid alternately as headers and stretchers. Only two courses of bricks remain but it is obvious from large quantities of white-washed plaster which were lying both inside and outside of these cells, that their walls had been treated with plaster throughout. The débris also abounded in charred wood and pottery tiles with which the gabled roofs were covered.

Portable antiquities recovered from these cells included pottery jars of different shapes and ornamented with various patterns, e.g. the *triratna upon the wheel*, the *svastika*, etc., iron nails, oval-shaped pierced tablets of schist which would appear to have been amulets, etc.

Silver Coins—The most interesting find made in this building, however, was that of a small pottery jar of coarse clay containing ancient coins, which was found hidden in the lower course of the outer wall behind the fourth cell from the north and which must have been deposited there by a monk or nun in disregard of the usual monastic rules which prohibit members of the Order to keep valuable articles. This treasure consisted of 36 silver coins which have been kindly cleaned for me by the Archæological Chemist in India and found to be in very good preservation (Plate IV, *b*). Eight of these, which are punch-marked coins, were wrapped in a piece of cloth, the other 28, which were of Greek and Indo-Greek kings, lay loose in the jar.

This find presents several points of interest. First with regard to the eight punch-marked coins. Such coins have, in the past, been found in company with datable coins. One hoard of 160

coins of debased silver, which Sir John Marshall found at Taxila in 1912-13, consisted of 159 punch-marked pieces and one gold coin in fine condition of Diodotos, king of Bactria (*circa* 245 B.C.). Sir John Marshall also found at the Bhur mound at the same site a much larger collection of 1,167 silver coins all of which were punch-marked pieces with the exception of two of Alexander the Great and one of his step-brother and successor Philip Arrhidæus. These two finds showed that punch-marked coins were in circulation at Taxila in the 4th and 3rd centuries B.C. My own collection proves that this circulation continued down to the 1st century A.D. or even to a later period. The Greek coins include one of Heliokles (*circa* 140 B.C.), the second son of Eucratides, and the last Greek king of Bactria (No. 9), one of the Indo-Greek king Apollodotos (No. 10), 16 coins of Menander, showing five varieties (Nos. 11-26), one of Antialkidas (No. 27), two of Hermaios with his queen Kalliope (*circa* 20-45 A.D.; Nos. 31-32) and four of the same king alone (Nos. 33-36).

These coins show that during the period, to which they belong, Baurat and the country around it formed part of the Greek dominions. Menander was probably the first Indo-Greek ruler to invade Rajputana and perhaps it is due to this circumstance that 16 out of the 28 coins of this class belong to his coinage. Lastly, these coins provide authentic evidence of the Buddhist establishment on the Bijak-kī-Pahārī having continued to be occupied until about 50 A.D.

Cotton Cloth.—This discovery also throws interesting light on the kind of clothing worn in the first century A.D. In the course of my excavations at Mohenjodaro in 1926-27, I had the honour of bringing to light fragments of textile material which, on examination by Messrs. A. N. Gulati, M.Sc., and A. J. Turner, M.A., B.Sc., of the Indian Central Cotton Committee, Technological Laboratory, were found to be true cotton cloth and established the use in the Indus valley of such material about 3000 B.C. when the Babylonians and the Egyptians wore dresses of only linen and wool. The same experts have very kindly tested a fragment of the cloth (Plate IV, *a*) in which the 8 punch-marked coins referred to above were wrapped. They have furnished me with a most interesting report and three photographs. I reproduce the following extracts from this report.

Identity of the fibres.—The microscopic examination of the fibres showed the presence of convolution, marked by the letter C in the photomicrographs, which is a distinctive feature of the cotton fibres. Hence, the cloth was made from cotton.

The weight of 1 square yard of cloth.—A piece measuring $\frac{1}{4}$ " \times $\frac{1}{2}$ " was cut with the help of a safety razor blade and was weighed on a torsion micro-balance. Its weight at 70% R.H. was found to be

4.55 mgm, from which it is concluded that a square yard of this cloth would weigh 3.3 ozs. Owing to the small size of the sample and there being only one observation, this figure should be regarded as approximately correct. Furthermore, no attempt was made to clear away the deposit of mud on the cloth, as there was a danger of its breaking into small bits when washed in water.

'The cloth was thus woven from 20's and 16's yarns, it being impossible to say which yarn was warp and which was weft. Furthermore, as there was a mud deposit on the material, these counts should be regarded as the lowest limit, the actual counts probably being somewhat higher.'

'The number of threads per inch in the texture of cloth—The number of strands to an inch was also counted and found to be 50 in lengthwise direction, and 34 in the other.' As regards certain patches of greenish stain on the piece of cloth the experts conclude that this stain was most probably due to rust from the coins round which they were found.

The portion of the monastery referred to above had undergone a rebuilding and, although the later foundations in some cases were laid over the earlier ones, they deviated slightly in other cases. The later structure over one of the cells at the north extremity showed a large pottery tile, 2 feet 2 inches square, which was surrounded by a paving of schist slabs and, when removed, revealed, underneath, a tiny chamber lined on two sides with thin bricks standing on edge. These bricks measure $21\frac{3}{4}$ " by 13" by $1\frac{1}{2}$ " and are identical in size and fabric with those used in an oblong platform found on the lower platform to be referred to later on. This chamber was dug down to a depth of 3 feet 6 inches, where the foundation composed of a layer of copper stone was reached, but revealed no antiquities of any kind.

For the words, 'The same experts' in lines 34 and 35 of page 22,

Read, 'Dr. Nazir Ahmad, M.Sc., Ph.D., F Inst P, the present Director of the Laboratory and Mr. A. N. Gulati, M.Sc.'

one of the six colossal boulders mentioned above showing, as hinted above, that the splitting of the rock must have taken place after the construction of this monastery. This catastrophe may perhaps have been one of the causes of its desertion.

Portable antiquities found in this area included a terracotta figurine (Plate V, a) of a dancing girl or Yakshī which has lost the

head and the feet The left hand rests on the hip while the right arm is laid across the chest to support the left breast. The figure is naked except for a girdle of three strings of beads round the waist Figures similar to this are found on railing pillars of about the first century B C at Mathurā This figure was lying a little above the floor level I found in this area also another figure of the same type of which only the bust remains Yet another object found in this area that deserves mention is the lower portion of a terracotta pilaster (height $5\frac{1}{2}$ ") consisting of a vase-shaped base on a triple pedestal and a semi-octagonal shaft above (Plate V, l) Pilasters of this design are found in the Anantagupha Cave in the Khandagiri hill in Orissa (Fergusson, *History of Indian and Eastern Architecture*, Vol. II, p. 16 and figure 271) and on the gates of the Sanchi Stupa (Smith, *Fine Art in India and Ceylon*, Pl XVII, B) Other noteworthy antiquities recovered from this part of the monastery were three saucer-shaped pottery lamps (Plate XI, d) with tubular projections in the middle through which a string was passed for suspension, the lower portion of an incense burner (Plate XI, h), and a portion of a conch bangle

On the south side no remains of the residential cells have survived, but that the general arrangement was the same as on the west side is obvious from the long walls of the corridors that are still extant Behind these corridors at the south-west corner of the platform the excavations revealed a stretch of stone paving or a causeway, the exact purpose of which is not intelligible. By the side of this structure were standing two large pottery jars for the storage of water or other provisions I also found in this area a large collection of common pottery lamps with round pierced pedestals which would appear to have been used to illuminate the buildings on special festivals, e g the Uposatha days

In the northern wing of the monastery (Plate III, b), fragments of only the later rebuildings have survived These included what looked like the sill, composed of granite and mica-schist slabs, of a doorway, which gave access to what might have been a storeroom Here a large variety of objects were found, e g a copper rod, thick at both ends, which may have been used as an ear-pick (Plate X, a), an iron scythe with a broad curved blade for cutting vegetables or mowing grass; the iron screw rod of a cotton press (Plate X, o) and an iron pickaxe (length 6"). There were also several fragments of pottery bowls of very fine light fabric, some with a beautiful golden lustre, which had been repaired with copper rivets (Plate XI, e and f), several pieces of Chunar stone polished on both sides and also exquisitely ribbed on the underside, which no doubt belonged to an Asokan umbrella (more of these will be mentioned in connection with the lower platform) and a fragment of the rim of a similar object.

i-Tsing tells us that pottery vessels of cheaper kinds were used only once and then discarded and dumped into a ditch. One such dump was found in this area between a group of large natural boulders.

Two curious little structures built of the usual kind of large bricks but belonging to the latest period were opened in this area and found to contain well-built square chambers (18 inches square). Neither of these, however, yielded any antiquities. A larger structure to the west of these, which is paved with stone slabs, probably supported a shrine which had completely disappeared.

The upper terrace had now been completely explored and all that remained to be done was to make sure that no earlier ruins lay buried beneath the level of the monastery. With this object in view, three open spots were selected on the south side, at the north-west corner and in the middle of the platform and dug down to the level of the natural boulders with which the site was originally strewn. It has now become obvious that the monastery was the very earliest building on the platform and that, as it would have been an arduous task to clear the site of the rocks referred to, it was simply levelled up by filling the crevices with gravel collected from the hillsides and the work of construction begun. The last of the three trenches mentioned above revealed a broad and thick layer of iron slag, the remains presumably of a temporary smithy set up for the making of iron and copper objects for the use of the occupants of the monastery.

The lower platform was heavily encumbered with stone blocks and other débris, particularly on the west side where only a few feet of the east boundary wall of the upper terrace were visible. In the middle of this terrace Sir A. Cunningham saw a square chamber which, he was informed, had been laid open by Maharaja Ram Singh's excavations and which he judged to be the interior of a temple. He also saw fragments of brick walls on all four sides of the platform which he believed to be the remains of a second monastery. This statement is only partially correct for although my excavations have indeed brought to light in the northern half of the platform an interesting circular temple of the time of Asoka surrounded by a rectangular enclosure wall, no remains of residential cells have been found on the sides of the platform.

The present dimensions of this platform, which has a very irregular shape, are 170 feet from north to south by 180 feet from east to west. My excavations revealed the interesting fact that the whole of this platform was not built at one and the same time, that is to say, along with the Asokan temple referred to above, but that the northern and southern portions were added at a somewhat later date to provide space for the increasing number of votaries. The original platform was only 114 feet wide from north to south, i.e.

just wide enough to afford a margin of about 24 feet on the north and south of the temple. The wide staircase on the east side of this platform must have been constructed when the original platform was extended on the south side.

The retaining wall of the original platform is well preserved on the north, from the level of the north-east corner of the enlarged platform to about the west extremity of the temple, and is standing to a height of 12 feet with a thickness of 6 feet near the base. On the south side a length of only about 33 feet has survived. These walls are, nearly half way between the façade of the temple and the east boundary wall of the platform, connected by a cross wall, the northern portion of which runs under a modern Muslim grave which, by the way, is not mentioned by any of the previous writers. Of the two rectangular enclosures thus formed, the one on the east is occupied for the most part by large boulders of stone, one large mass of which, 12 feet high, was surrounded by a heap of ashes and badly burnt in antiquity by bonfires, the exact purpose of which could not be ascertained. Close to this spot was another saddle-shaped block, 22 feet long by 19 feet wide at the base and 12 feet high at the west end. The underside of this block had been hollowed out either by natural action or by human hands into a cosy little cavern which might well have been resorted to by monks requiring solitude for quiet meditation. This cavern is 13 feet deep by 10 feet wide and 5 feet high at the entrance on the west. Brickbats and potsherds were found in this cavern mixed with loose rough cut stones but no objects of interest.

Remains of Aśoka Pillars—In a deep crevice in the midst of the boulders on the south was found a collection of 100 polished pieces of Chunar stone and a still larger number of unpolished ones, which must no doubt be the remains of one or more Aśoka pillars which had been battered to pieces. Several thousands of other pieces (Plate VI, a) of these pillars were found on the southern extension of the platform, some of which lay in heaps. Other pieces were found all along the east retaining wall of this platform and lower down on the slope of the hill and by the side of the large rock, named as the 'Top'. A few pieces were also found in the circular temple to be described below.

Only a few of these pieces were found on the upper terrace, all the others on the lower platform. The polished pieces vary in size from tiny chips of a quarter of an inch to about 18 inches in length by 7 inches in height. All of them show the usual curvature giving an approximate diameter of about 3 to 3½ feet. The large collection of chips referred to above included a fragment which is polished in the upper 7 inches but roughly chiselled below (Plate VI, b). This fragment is obviously broken from the base of

one of the Aśoka pillars at the point where the lower rough surface met the upper polished surface. This circumstance is interesting as showing that the pillar to which it belonged was broken down to its very bottom. Another piece (Plate VI, c) is broken from the summit of the shaft and preserves a part of the well-cut tapering hole (diameter 2") into which was fitted the metallic bolt to support the abacus of the capital which crowned the pillar. The upper surface of this fragment bears the usual Maurya polish and the Brāhmī letter *na*, the significance of which is not ascertainable. No portions of the abacus have been recognized but a tiny roundish piece, polished in the usual way, appears to have been broken from the shin or ankle of a large statue of a lion (Plate IX, d). I am inclined to think that the capital of one of the pillars supported a statue of this animal.

The largest unpolished fragment from the core of the pillars is one measuring 2 feet 2 inches by 1 foot 9 inches by 1 foot 5 inches thick (Plate VI, a). This block bears a series of chisel marks which appear to have been made to split it into smaller chips. These chips are, for the most part, of unspotted drab Chunar sandstone. A few of them including the fragment, broken from the division of the polished and unpolished surfaces, has black spots showing that there were, on this hill, not one but two Aśoka pillars. That these two pillars were set up on the lower platform is obvious enough from what has been stated above but where exactly they stood I was unable to determine, in spite of a thorough exploration of the site. The pillars at Sarnath and Rampurva and, presumably also all the other Aśoka pillars known to us, stand on thick rectangular slabs of the same kind of stone of which these pillars are made and I fondly thought that the base slab of one or the other of the two pillars, under discussion, would be found, but there was no such luck.

The question as to how and by whom these pillars were destroyed, at present, remains a mystery and I am doubtful if it will ever be effectively solved. Any suggestion that these pillars were destroyed by a Muhammadan invader must, I think, be ruled out of court. Many of the fragments being dealt with were lying at such considerable depths, that the destruction could not have taken place at such a late date as the end of the 12th century A.D. when Shihāb-ud-Dīn Ghori destroyed the Buddhist remains at Sarnath or the 14th century A.D. when Bakhtiyār Khalji massacred the shaven-headed Buddhist monks in the Bihār and Nālandā monasteries. Nor was it the doing of the reforming Hindus like Kumārila Bhatta¹, seeing

¹ Takakusu finds no trace of Brahmanical hostility towards Buddhism in the chronicle of I-Tsing (Buddhist Practices in India) whose travels in India presumably took place during the lifetime of Kumārila Bhatta and Śaṅkarāchārya.

that marvellous tolerance and goodwill existed between the followers of the Hindu and Buddhist faiths. In this connection one is reminded of the violence perpetrated by the White Hun Mihirakula (*circa* 510-540 A D) in Kashmir and on the North-West Frontier where, according to Hiuen Tsang, in the course of his invasion of Gandhāra, he overthrew Buddhist Topes, destroyed monasteries and put to death myriads of the population. The monuments of Bairat may well have been destroyed by this invader.

Other antiquities, found in the portions of the lower platform under description, were a tapering piece of stone resembling a leg of a human statue of local Bairat stone; 14 pieces of a dish (Plate XI, *i*) of grey clay which fit together and which were lying to the east of the grave; a white chert flake and cores of chocolate coloured flint (Plate IX, *m*, *e* and *f*), a well-carved piece of a casket (Plate IX, *i*) of steatite ornamented with dog-tooth and other patterns which was found at the south-west corner of the same structure and a part of a grindstone of Chunar sandstone (Plate IX, *c*)

The Circular Temple—The temple (Plates VII and VIII) is found to be a most interesting structure which must be contemporaneous with the Aśoka pillars referred to above and built by the same emperor. It was destroyed by a great fire. When I commenced my excavations on this part of the lower platform, I found on the surface no traces of the square chamber of the temple which had been brought to light by the Qiladar Kītājī and which were extant at Cunningham's visit. The only remains of that previous excavation were two trenches, one of which was found, later during the excavation, to have entered and destroyed the north-east portion of the temple, while the other followed a part of the circumambulatory passage. In the earlier stages my work was considerably hampered by the discovery of a long and massive boulder wall running east to west through this area which had been constructed at a subsequent date and caused much confusion. The portion of the original structure that first made its appearance was the square corner on the south-west and, inside it, a portion of a curved wall and, a few feet interior to it again, another similar wall. The whole structure was excavated with meticulous care and found to be a circular chamber with an inside diameter of 27' 2", having all round it a circumambulatory passage, 7' 3" wide and around it again a fairly well-preserved encircling wall. The circumambulatory passage is paved with a thick layer of brick concrete, finished with a thick coat of lime plaster, which must have been renewed two or three times. The interior of the central structure was excavated down to the bed of the rock which was also cut into, but yielded no relic deposit of any kind. The contents of this chamber consisted of earth, brickbats, potsherds and other débris. The lowest course

at the base of the circular wall projected a little at several places, to indicate that the interior had been paved with a brick floor and at least two other small bits of brickwork had survived *in situ* in the middle of the chamber. They are composed of large-sized wedge-shaped bricks, 2 feet in length, 15" and 13" wide at the ends and 3" thick. There was an entrance on the east side, preceded by a portico 2 feet in depth and supported in front on wooden pillars, charred bases of which have survived in square grooves cut into the floor of the passage

In front of this doorway of the central shrine were found the remains of a broader entrance, 8' 7" wide, in the outer wall of the circumambulatory passage (Plate VII, *b*) The brick jambs have the original mud plaster still adhering to them Of the wooden doorway itself the following remnants were found *in situ* charred portions of the wooden uprights and of the sill; large iron nails (Plate X, *m*), 9" in length and 1" in thickness near the head, which were lying close to the stumps of the uprights, wooden pins fixed in semicircular plastered holes in the floor immediately behind the uprights, to support iron sockets in which the tenons of the door leaves swung. The iron sockets are thick discs with convex bottoms to fit into the hollowed tops of the pins Double-pointed iron cramps (Plate X, *k* and *l*), by which the door tenons were secured to the door leaves, were also found in the places where they must have fallen when the doors were destroyed by fire In the channel which held the wooden sill and on the floor adjoining it were lying a number of tiny terracotta beads (Plate V, *g*) with pieces of thread still remaining in their holes. These must have been used to decorate the doorway in the same way as the doorways of temples are nowadays adorned on special occasions with strings of mango leaves.

The wall of the inner shrine is constructed in a peculiar style being made up of panels of brickwork alternating with octagonal columns of wood, which numbered 26 including two which have disappeared in the gap on the north-east due to previous excavation Charred stumps of most of the other columns have survived and double-pointed iron cramps found in the recesses, in which these columns stood, indicate that the latter were composed of two or more thin sections, joined together to obtain the required thickness That these columns and the uprights of the doorways were adorned with vertical flutings and other patterns may be inferred from impressions left on baked patches of mud plaster (Plate X, *f* and *n*) The single-brick panels between these columns are, as might be expected, composed of wedge-shaped bricks, 20" long by 12" and 9" wide at the ends by 3" thick It will be observed that the usual proportion of length to breadth of bricks on this site is here deviated from This must have been due to the truncated shape of the material. As in

the Asokan brick stupas, the mortar employed in the structure under description is ordinary mud, though the outer surface of the wall is coated with lime plaster which must have been renewed several times. Large patches of this plaster, burnt black and red, were found all over the place. The outer wall of the circumambulatory passage is, like the monastery on the upper platform, composed of bricks measuring 20" by about $10\frac{1}{2}$ " by 3". The whole temple was at a later date enclosed by a rectangular wall with internal dimensions of 44 feet 6 inches from north to south by about 70 feet in length. The eastern portion of this rectangular enclosure must have served as an audience hall for votaries.

The superstructure of the temple would appear to have been built in the same way as the existing lower portion, namely, that the brick panels rose right up to the eaves and that the 26 wooden columns supported a ceiling consisting of horizontal rafters laid one upon each pair of the columns. Above this there was a gabled roof covered with flat corrugated pottery tiles measuring 14" by 9" by $\frac{3}{4}$ ", which were found in large quantities, and finished at the top with a tall pottery finial. This finial which is broken in two or three pieces has a plain tapering stem, the upper portion being ornamented with a series of horizontal flanges, and terminating in an egg-shaped ornament (*anda*) (Plate V, 1). The circumambulatory passage was covered by an inclined roof supported on one side upon the outer brick wall and on the inner side upon the wooden architraves of the pillars of the central shrine¹.

This is the oldest structural temple and one of those which furnished models for the numerous rock-cut cave temples of Western and Eastern India. The nearest approach, both in plan and design, to this newly discovered temple is the *chartya* cave of about the 1st century B C in the Tulja Lena group at Junnar². This rock-cut temple is about the same size as the one unearthed at Bairat and has the same internal arrangement, with only this difference that whereas the sanctum in the cave temple in question is surrounded by a circular row of 12 rock-hewn pillars, the temple at Bairat consisted partly of brick and partly of wooden columns. It will be noted that the columns in both these temples are octagonal.

The interior of the temple at Bairat had, as previously stated above, been unfortunately cut away by the previous explorer, referred to above. But if, as is almost certain, the Junnar temple represents an exact copy of the earlier temple discovered at Bairat, the object of worship in the latter must also have been a *stūpa*. And as this temple was undoubtedly the work of Aśoka, the *stūpa* may have

¹ Cf. the bas relief illustrating 'the hair relic shrine' in Cunningham, *Stupa of Bharhut*, Pl. XVI.

² Fergusson and Burgess, *Cave Temples of India*, p. 252 and Pl. XVIII, 3-4.

contained a body relic of the Buddha. The two fragments of brick-work brought to light in the middle of the central chamber (Plate VII, *b*), which have been alluded to in a foregoing paragraph must have formed part of this *stūpa*. I was also fortunate enough to find, both in and around this temple, numerous fragments of a large stone umbrella of Asokan workmanship and a few fragments, which fit together, also of a large bowl of the same material and similar technique. All the umbrella fragments are polished on both sides and also decorated with exquisite ribbing on the lower side. Most of these pieces are small fragments from different parts of the umbrella, the largest being $16\frac{1}{2}$ inches long and about 6 inches thick. Three of these pieces fit together (Plate VI, *d*). Fragments broken from the rim are naturally thinner than the others, but no pieces of the central portion or hub or of the stone-post which supported the umbrella were found. To judge from the pieces under description the umbrella must have been more than 3 feet in diameter. This umbrella no doubt surmounted the *stūpa* in the central shrine and the stone bowl referred to above may have been the receptacle in which the gold reliquary referred to above was enclosed and deposited in the *stūpa*. This bowl would appear to have been fashioned on a lathe. The pieces recovered are about an inch thick and broken from the rim (Plate IX, *a-b*). When entire, the bowl must have had a diameter of about $13\frac{1}{2}$ inches but the pieces recovered when fitted together are only 9 inches across.

On the outside, the walls of the temple were inscribed with Buddhist texts in Brāhmī characters of the Asokan period. Several bricks inscribed with one or two *aksharas* (Plate V, *e, o* and *q*) were found built in the rectangular enclosure wall around the temple. A few of them read *pāsam, viśa, vi, kama*, etc. May we assume that these inscriptions reproduced, in bold letters, extracts from the very texts from the Buddhist scripture, which, in the Bairat-Calcutta edict, Aśoka had exhorted his subjects to listen to and study for the furtherance of the Buddhist religion?

Other objects found in and around the temple included the terracotta hood of a snake, a pottery incense burner (Plate XI, *h*); three conical terracotta objects pierced with concentric rows of holes to hold incense sticks (Plate V, *n*) which were lighted in the temple at the time of worship and which were lying on the floor in the ante-chamber; a terracotta figure (Plate V, *c*) of a dancing girl or *yakshī* similar to those found on the upper terrace, with the left hand on the left hip and the right on the thigh; a solid pottery cylinder with railing pattern (Plate V, *l*); many fragments of begging bowls of fine clay coated with polished slip or paste, a fragment of a pottery dish or offering tank with a tiny bowl or lamp attached to the rim; a pottery *gharā* with a nearly spherical body and a

short and narrow neck, which was filled with earth and closely resembles in shape similar vessels depicted in the Bharhut Stupa reliefs, spouts of pottery jars; potsherds with scratched decoration; large quantities of iron cramps, nails of different sizes, large-sized fish-plates with nails sticking in their broad ends (Plate X, *c* and *d*) which had been employed in the wooden pillars and doors of the temple; an iron chisel; a reel of metallic ribbon (Plate IX, *h*) similar in shape to those found at Sambhar (p 8 *supra*); a single arrow-head (Plate X, *p*), a copper needle (Plate X, *b*, length 4 2"), one of the few articles of necessity which every Buddhist monk carried with him on his journeys. A fragment of a grindstone of Chunar sandstone was found to the south of the temple and another fragment of a similar antiquity to the north of the staircase to the lower platform. In the narrow trench which was dug to expose the north boundary wall of the original narrow platform around the temple, at a depth of 14 feet below the surface, was found a potsherd broken from the neck of a pottery *gharā*. This is ornamented with plain incised decoration, and bears a short inscription in early Brāhmī characters which appears to read *luparichakra* (?). The meaning is not clear. Another potsherd with similar ornamentation, which was found to the north of the staircase to the lower platform, also appears to bear some writing but it is too much defaced to be deciphered. A fragment of Chunar sandstone found on the lower platform behind the staircase on the east may be part of a spoke of a wheel, similar to the one that rested on the top of the Aśoka pillar at Sarnath.

Brick Platform—The only other ancient brick structure that has survived on the lower terrace is a rectangular platform made of two courses of bricks measuring $21\frac{3}{4}" \times 13" \times 1\frac{1}{2}"$ which came to light in the southern extension of the lower terrace. I had found a similar low platform around the base of one of the Aśoka pillars at Rampurva in the Champaran district in 1907-8 and it had at first sight appeared that one of the Aśoka pillars might have stood upon this paving. This, however, could not be the case, as beneath this pavement there is nothing but natural blocks of stone. I-Tsing tells us that ceremonies pertaining to the ordination of *sāmaneras* in Buddhist monasteries were performed on a small terrace or within a large enclosure. May this platform have been used for a similar purpose?

Coins.—The importance of the 36 silver coins found in the east wall of the monastery on the upper terrace in connection with the dating of the monuments brought to light has been noticed above. All these coins are exceedingly well preserved and, in view of the renewed interest being taken in the study of the punch-marked coins, I have considered it advisable to illustrate each of the eight coins of this class included in this collection (Plate IV, *b*).

In an interesting essay entitled *Classification and significance of the symbols of the silver punch-marked coins of ancient India*¹, Mr Durga Prasad of Benares divides coins of this class into three chronological types, the latest of which he assigns to about the time of Aśoka. He interprets a large number of the symbols occurring on these coins as representing mystic signs used in Hindu worship and mentioned in Tantric and allied texts. It is interesting to observe that many of the symbols found on the eight coins discovered by me are of the same developed type which Mr. Durga Prasad associates with the later coins of his enumeration. Of the remaining 28 coins which belong to the Greek and Indo-Greek kings of North-West India, only the rarer pieces are illustrated in the accompanying plate (Plate IV, *b* 9 seq.) They are all, however, listed below —

LIST OF 36 SILVER COINS (F R No 89) FOUND IN THE EAST WALL OF THE MONASTERY ON THE UPPER PLATFORM

Serial No	Shape, size and weight	Obverse	Reverse	Remarks
PUNCH MARKED COINS				
1	Oblong with two corners chipped off 9" × 5" × 04" 49 25	Five or six well preserved symbols	One dm symbol	Pl IV, <i>b</i> Large crescent with projection in the middle and thick ends, dot in r or l half, probably not found on other coins
2	Oblong with one corner chipped off 8" × 35" × 06" 44 25	Four symbols, two of which resemble those on No 1	Dm traces of one or two symbols	Pl IV, <i>b</i>
3	Oblong with one corner cut off 7" × 55" × 03" 45	Five symbols	Dm trace of a symbol	Ditto
4	Square with one corner cut off 55" × 5" × 03" 48 5	Six fairly well preserved symbols including 3 arched sign with 3 big dots in corners	One symbol Crescent and trident back to back	Ditto
5	Square 45" × 42" × 09" 50 75	About four symbols	Crescent with pointed projection in the middle and bifurcated ends, etc	Ditto
6	Circular or oval Diam 6", thickness 06" 51 75,	Five well-preserved symbols	Well preserved caduceus	Ditto

¹ *Journal and Proceedings of the A S B* (New Series), Vol XXX 1934, 3

Serial No	Shape, size and weight	Obverse	Reverse	RE MARKS
7	Circular or oval Diam 6", thickness 05" 52 25	Five well preserved symbols	Caduceus and traces of other symbols	Pl IV, b
8	Circular Diam 6", thickness 05" 18 75	Four symbols	One dim and unfamiliar symbol	Ditto

GREEK AND INDO GREEK COINS

HELLENISTS

9	Circular Diam 6" 36 5	Bust of King 1, diad Gr legend, <i>Basileos Diakou</i> , below <i>Hihkleous</i>	Zeus standing, holding thunderbolt in r, and long sceptre in l hand Kh legend <i>maharajasa dhramakasa</i> , below <i>Helihalejasa</i>	Pl IV, b Smith —III, 2 but different mon New variety
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APOLLONIOS

10	Square 6" x 6" 35 5	Elephant walking Gr legend, 1 <i>Basileos</i> , top <i>Apollodotou</i> , 1 <i>soteros</i>	Bull standing r Kh circular legend, <i>maharajasa</i> , <i>Apaladulasa tradarasa</i>	Pl IV, b New variety
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MENANDER

11 to 16	Circular 7" 34 to 38	Horned bust of king facing r Gr legend, <i>Basileos soteros</i> , below <i>Menandrou</i>	Pallas to l Kh legend, <i>maharajasa trutarasa</i> , below <i>Menadrasa</i>	Ditto
17	Circular 65" 35 25	Ditto but king faces l	Ditto	Ditto
18, 19 20	Circular 65" 35 to 37 5	Diad king 1 Gr legend similar	Ditto	Ditto
21 to 25	Circular 6" 36 25 to 37 75	Diad bust of king thrusting javelin Gr legend as above	Ditto	Ditto
26	Circular 7" 37 5	Bust of king thrusting javelin to l. Gr legend runs continuously round margin	Ditto Kh legend runs continuously round margin	Ditto

Serial No	Shape, size and weight	Obverse	Reverse	REMARKS
ANTIALKRIDAS				
27	Circular 7" 37 5	Bust of king r, diad Gr legend, <i>Basileos Nikephorou</i> , below <i>Antialkidou</i>	Zeus l, holding long sceptre in l hand, and in r a small figure of <i>Nike</i> holding palm and a wreath towards which forepart of a small elephant r, extends its trunk	Pl IV, b New variety Cf Smith, Plate III, 7, but elephant faces r
STRATO I				
28	Circular 7" 36	Bust of king r (youthful portrait), diad Gr legend, <i>Basileos soteris</i> , below <i>Stratenos</i>	Pallas, holding ægis in l hand and hurling thunderbolt with r hand Kh legend, <i>maharajasa tratarasa dhramakasa</i> , below <i>Stratasa</i>	Not illustrated by Smith Pl IV, b
29	Circular 7"	Bust of king r, helmeted, youthful portrait Gr legend, <i>Basileos soteris</i> , below <i>Stratenos</i>	Ditto	Pl IV, b
ANTIMACHOS NIKEPHOROS				
30	Circular 7" 37	Nike l, holding palm in r, and fillet in l hand Continuous Gr legend, <i>Basileos Nikephorou Antimachou</i>	King wearing diadem on horse-back r Continuous Kh legend, <i>maharajasa jayadharasa Antimakhasa</i>	Similar to Smith, Pl VI, 3, but different mon Pl IV, b
HERMAIOS WITH HIS QUEEN KALLIOPE				
31, 32	Circular 7" 37 5 and 38 25	Bust of king and queen r, jugate, both diad Gr legend, <i>Basileos soteris Ermaiou</i> , below <i>Kallikalliope</i>	Helmeted king on prancing horse, r Kh legend, <i>maharajasa tratarasa Heramayasa</i> , below <i>Kalyapaya</i>	Plate IV, b
HERMAIOS ALONE				
33 to 36	Circular 7"	Bust of king r, diad Gr legend, <i>Basileos soteris</i> , below <i>Ermaiou</i>	Throned Zeus l, radiate Kh legend, <i>maharajasa [tratarasa]</i> , below <i>Heramayasa</i>	Similar to Smith, Pl VI, 13 Pl IV b

Pottery—Indian pottery of the historical period, i.e. dating from the 3rd century B.C. downwards, continues to suffer from the lack of a proper chronological classification. This is due to the highly conservative character of the material and to the absence on it of decorative designs or patterns which could be used for comparison and dating purposes. The fabric and shape are the only criteria available and these do not show a considerable variety. I am glad to have been able to bring to light at Bairat a representative collection of earthenware vessels which can be definitely assigned to the three centuries from 250 B.C. to 50 A.D. Owing to the exceedingly small accumulation of débris between the three or four strata noticed in the monastery area on the upper platform and of the confusion caused by previous unskilled excavation, it is not possible further to sub-divide the material between, say, the Maurya and the Śunga periods. Complete specimens are unfortunately comparatively few. The whole of the pottery revealed is wheel-made and quite plain, uncoated even with any kind of slip or wash in spite of the abundance of ochres of various colours in the neighbourhood. The only ornamentation noticed on these utensils consists of simple scratchings in vertical or horizontal rows generally around the shoulder or on the body of the vessels, a few of the sacred Buddhist symbols, e.g. the *triratna* upon the *dharmachakra*, the *svastika* and the lotus rosette (Plate V, f), the chain pattern made with the potter's finger-nails, or plain incised lines. These vessels are all roughly made of coarse grey clay with a proportion of sand and mica and the commonest types distinguished among them are: large storage jars with round bases as distinguished from the pointed stems of similar jars on the Indus valley sites, dishes with broad flat bases which may have been used as jar covers or as eating dishes (Plate XI, k and o), *ghanās* (Plate XI, c) with nearly spherical bodies and similar to those illustrated in the bas-reliefs on the Stupa of Bharhut, another type of water jar which, to judge from numerous fragments found, was a vessel with a straight neck and projecting rim with the rest of the surface scored with vertical or horizontal scratchings (Plate XI, b), tumblers or beakers for drinking water with flat bases and straight sides (Plate XI, l), several varieties of jars resembling the modern *lotā* of different shapes (Plate XI, n, p, q, etc.), spouted jars for pouring water from (Plate XI, g) of the type from which Anāthapīṇḍika pours out water in token of his gift of the Jetavana monastery to the Buddha¹, incense burners with handles (Plate XI, h), lamps of the usual simple shape and others with perforated tubular projections in the middle to receive a string or iron chain by which they were sus-

¹ Cunningham, *Stupa of Bharhut*, Pl. LVII

pendent from a peg or a ceiling (Plate XI, *d*), fragments of offering tanks with a tiny lamp or a bird perched on the rim (Plate XI, *j*), a small bowl with a rebated edge for the cover, another fragment which may have formed part of a casket, a flesh rubber with surface roughened with fine black gravel, the neck of a goblet (Plate XI, *n*) and pottery finials. None of these articles has a slip or colour wash of any kind with the sole exception of the casket which bears a brown slip. It is noteworthy that no complete or broken specimens of the well-known monk's drinking vessel or water bottle, known in Buddhist texts as the *kundī* or *kundikā* were found among the Buddhist remains at Bairat, although they are found in large numbers on other Buddhist sites¹.

The only class of utensils that are made of a fine light clay and coated with highly polished slips were alms bowls, numerous fragments of which were collected. These bowls had been ornamented or repaired with copper rivets and fillets and fine pins of copper are still extant in several specimens (Plate XI, *e* and *f*). The rivet holes indicate the use of fine boring tools. Stone vessels repaired in the same fashion were found at Mohenjodaro and I have seen in the Jaipur Museum conch bangles also treated in the same manner, which date from the same early period as the Bairat specimens and were unearthed in the ancient mound near Sambhar. An unglazed dish of grey clay which I found broken in 14 pieces is the only complete specimen of such a utensil (Plate XI, *i* diam. $8\frac{1}{2}$ inches).

Bricks — Bricks of the following sizes were found employed in the buildings brought to light :—

- (1) $2' 7'' \times 1' 4'' \times 3''$ in the platform flanking the staircase to the upper terrace on the north side
- (2) $20'' \times 10\frac{1}{2}'' \times 2\frac{3}{4}''$ in the monastery on the upper terrace and in the outer wall of the circumambulatory passage around the temple on the lower platform.
- (3) Wedge-shaped bricks $20''$ by $12''$ and $9''$ wide at the ends by $3''$ thick, in the circular wall of the central shrine
- (4) Wedge-shaped bricks $2'$ by $15''$ and $13''$ wide at the ends and $3''$ thick in the fragments of the brick *stūpa* in the temple
- (5) $21\frac{3}{4}'' \times 13\frac{1}{2}'' \times 1\frac{1}{2}''$ in the oblong brick platform on the lower terrace
- (6) $13\frac{1}{2}'' \times 9'' \times 2''$, a loose brick found on the lower platform to the south of the temple

¹ Vide A. K. Coomaraswamy's interesting study entitled 'Chinese Buddhist water vessel and its prototype'.

- (7) Large flooring tiles $2' 2'' \times 2' 2''$ found at the top of the later chamber in the east wing of monastery on the upper terrace

The advantage, for structural bonding, of bricks with the scientific proportion of two widths to the length is well known. Until the commencement of excavations at Harappa and Mohenjodaro no bricks with such convenient dimensions had been noticed at any ancient site in India, those employed in the Maurya and later buildings had irregular sizes in which the width varied from two-thirds to four-fifths of the length, with the result that, where structural bond was necessary, bricks had to be cut up for use. The use of wedge-shaped bricks in the circular wall of the temple is also noteworthy. Such bricks, we know, were moulded and used in the Indus valley in the 3rd millennium B.C. Lastly it is interesting to find that all the structures brought to light on Bijak-kī-Pahārī are built with bricks instead of with stone which abounds in this hilly country.

CONCLUSIONS.

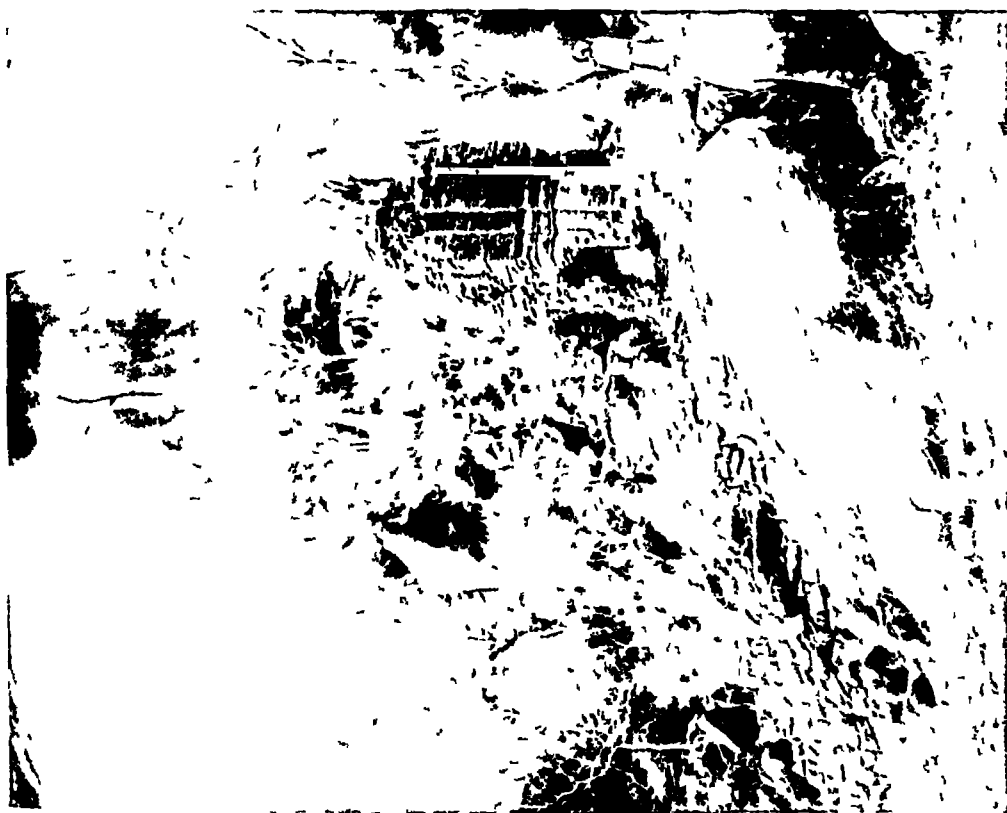
This small site, covering an area of not more than 400 feet by 190 feet, has yielded an unexpectedly rich harvest of archæological remains of the Maurya period and those immediately succeeding it. The principal monuments brought to light are numerous remnants of two Aśoka pillars similar to the other known memorial pillars of that emperor, a temple of an entirely new type and a monastery both of which latter monuments must also have been erected by Aśoka himself. Of the two pillars no large sections have survived among the thousands of pieces broken from their outer polished surface and from the core. The cause of this wholesale destruction and chipping of these pillars will perhaps never be known. I have tentatively suggested that this was the work of the White Hun Mihirakula in the beginning of the 6th century A.D. It is, however, equally possible that these pillars were thrown down by a severe earthquake and then broken up by the neighbouring villagers and converted to profane uses. The only other site where Asokan monuments were so completely destroyed is that of the great audience hall of the Maurya Emperor Chandragupta at Pāṭali-putra, where only one of the hundred pillars that supported it was found intact. The late Dr. Spooner held that these pillars had sunk and been irretrievably lost into the earth. I venture to suggest that the pillars at Pāṭali-putra had met with a similar fate to that which overtook the pillars at Bairat. With the exception of the live rocks bearing his edicts, all the lithic monuments of Aśoka are made of a kind of sandstone found at Chunar in the Mirzapur district of the United Provinces, and fragments of the Bairat pillars may yet be found in the neighbourhood sooner or later.

An interesting feature of this excavation is the total absence among the finds of anthropomorphic representations of the Buddha in any form or material, which is in full accord with the view that the Buddha image was not evolved until about the 2nd century A.D.

As regards the identity of the site that has been under exploration or of the town of Bairat, I confess that my excavations yielded no evidence to corroborate M. Renaud's view that it is the modern representative of the Po-li-ye-to-lo of the Chinese pilgrim Huen Tsang. One serious objection to this identification is that whereas in his very short account Huen Tsang mentions the existence of as many as eight Buddhist monasteries at Po-li-ye-to-lo, only one has been found on the Bijak-kī-Pahārī and there are no promising mounds in this vicinity, in which remains of the other seven

monasteries could be looked for. It was not the practice in those ancient times to build such hospices for monks and nuns in the midst of busy towns, but if there was a departure from the rule in this case, Hiuen Tsang would not have failed to say so. Fa Hian obviously did not visit this place. Sir Alexander Cunningham identified the 'Kairat' of the Muslim historians, Abu Rihan and Ferishta, with Bairat and its capital Narana or Bazana with the ancient village of Narayan, distant 10 miles, north-west from Bairat. My friend, Mr. C E A W. Oldham, C S I, informs me that this identification has already been rejected by Sir Aurel Stein who locates Narana in the Salt Range in the Punjab.

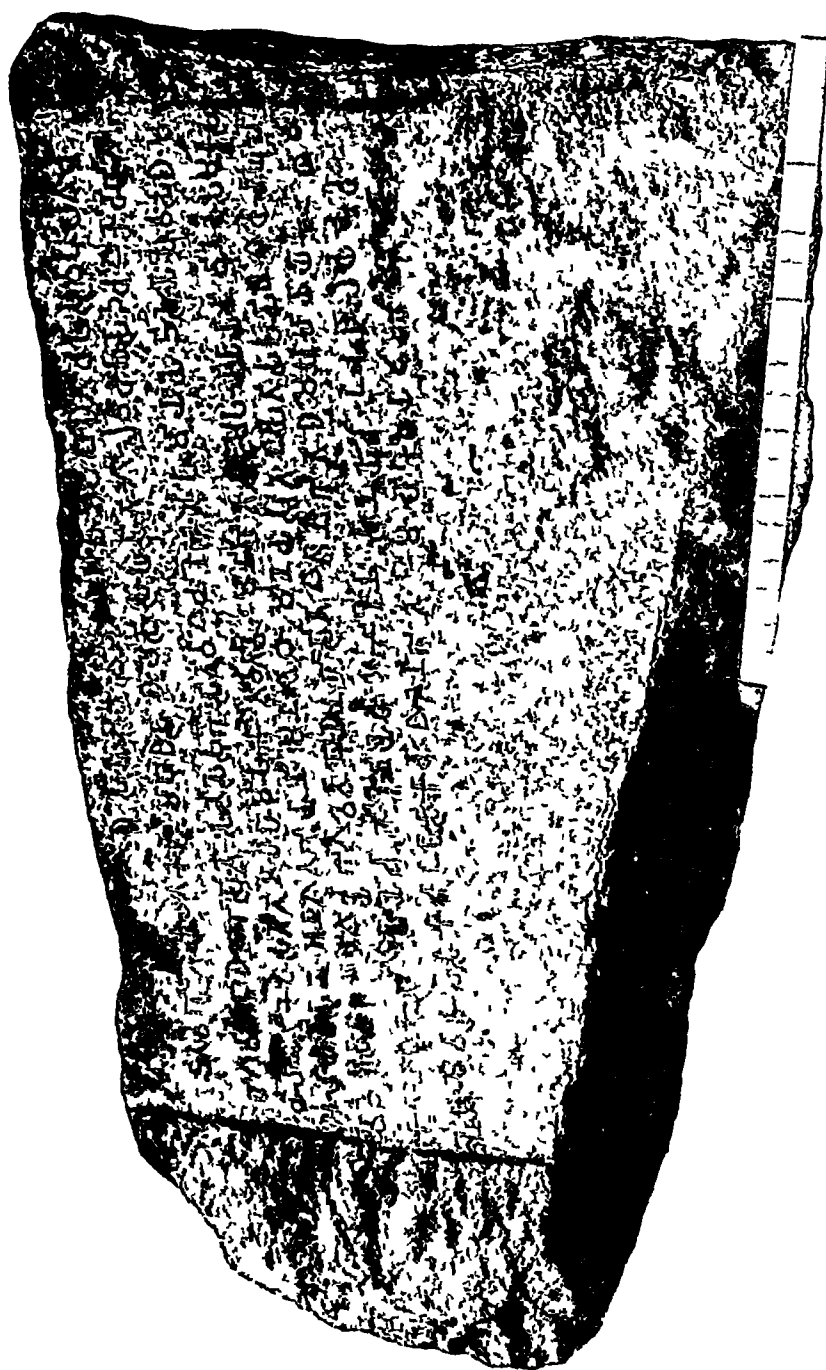
Lastly my researches on this site reveal the fact that a small valley to the south of the Bījak-kī-Pahārī was inhabited in the prehistoric period many centuries before the Buddhist establishment came into being. The chert flakes and cores found in one of the rough-built stone platforms in this valley and on the lower terrace of the adjoining hill closely resemble those found on the chalcolithic sites in the Indus valley.



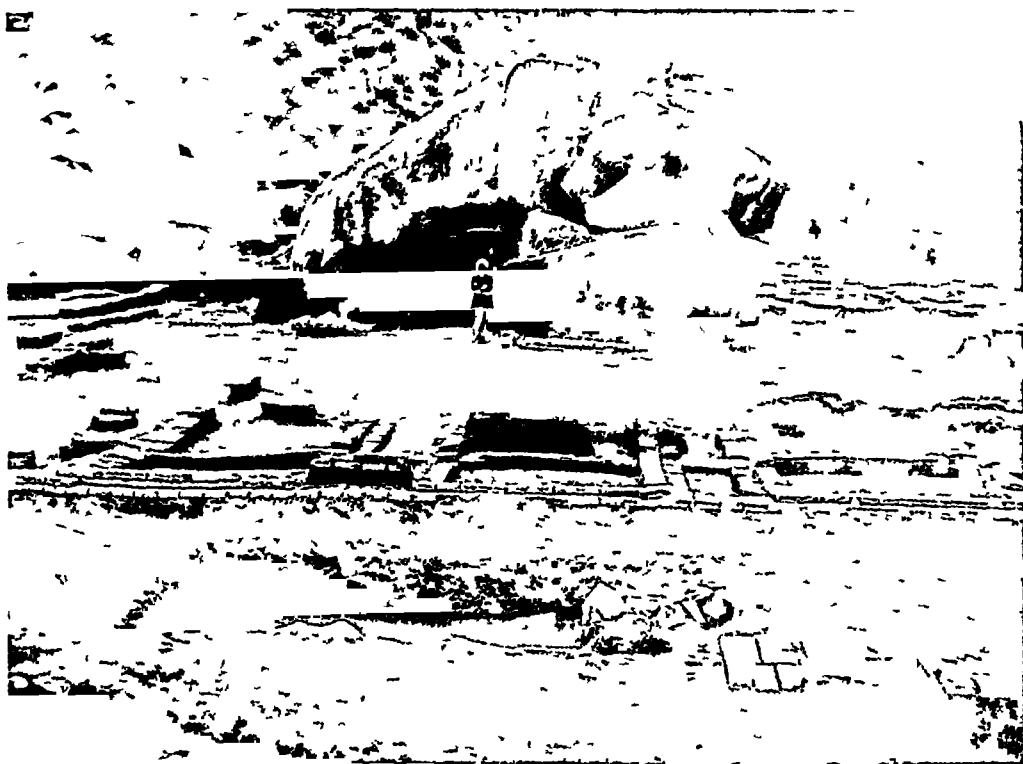
(a) Buck temple on the eastern edge of Bhumi-ki-Dungri



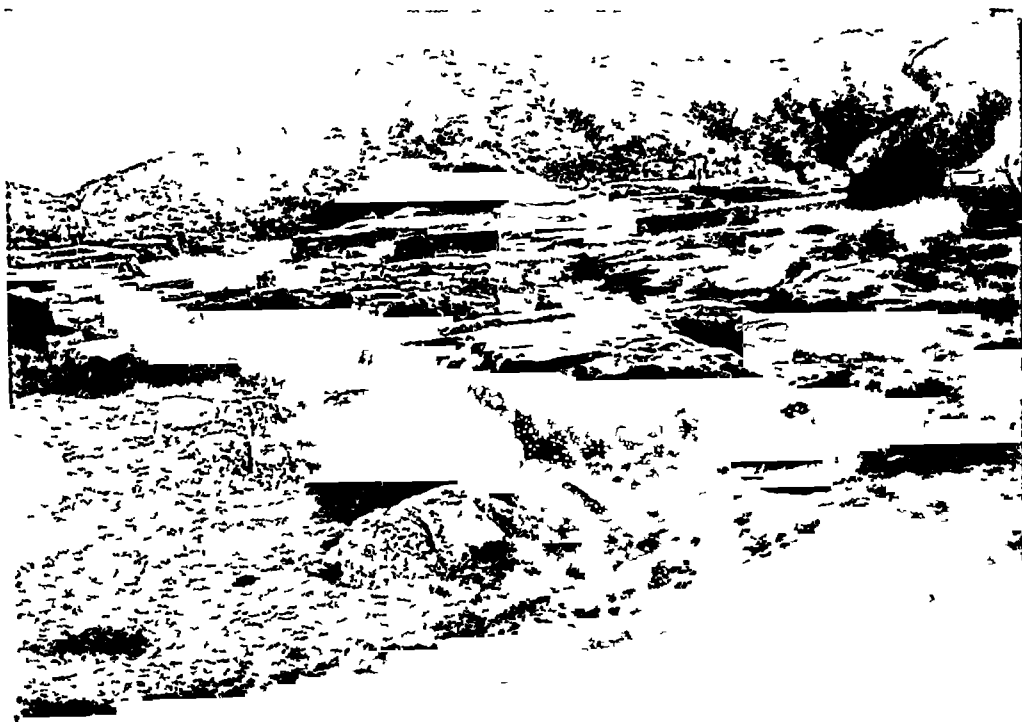
(b) Portico of Jaina temple in the town of Banat



Stone bearing Barut—Calcutta Edict of Asoka



(a) Cells on east side of monastery on upper platform



(b) Fragments of cells on north side of monastery on upper platform

EXCAVATIONS AT BAIRAT



(a) Piece of Cotton Cloth



1

2



3



4



5



6



7



8

(b) 1-8 Punch-marked Coins of Silver



9



10



11



27



28



26



30



33



870

(b) 9-33 Greek and Indo-Greek Silver Coins



a



b



c



d



e



f



g



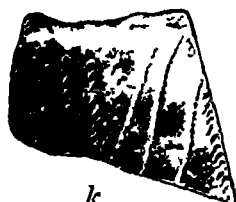
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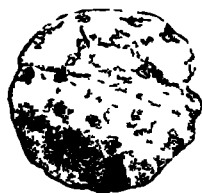
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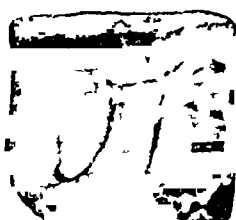
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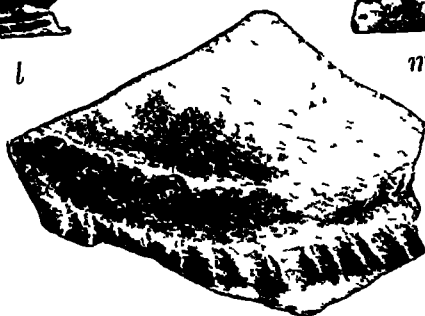
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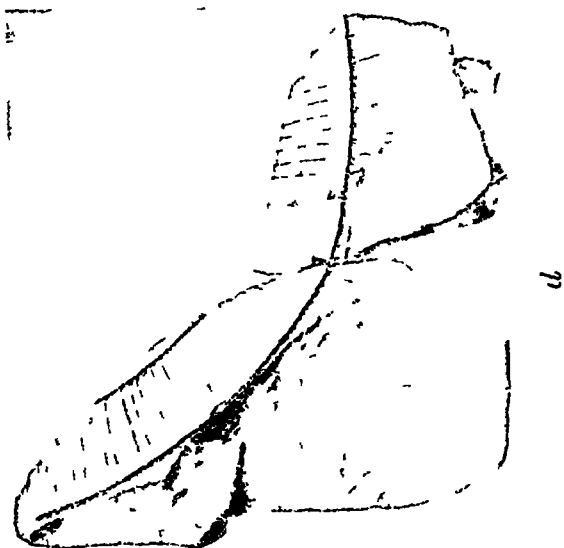
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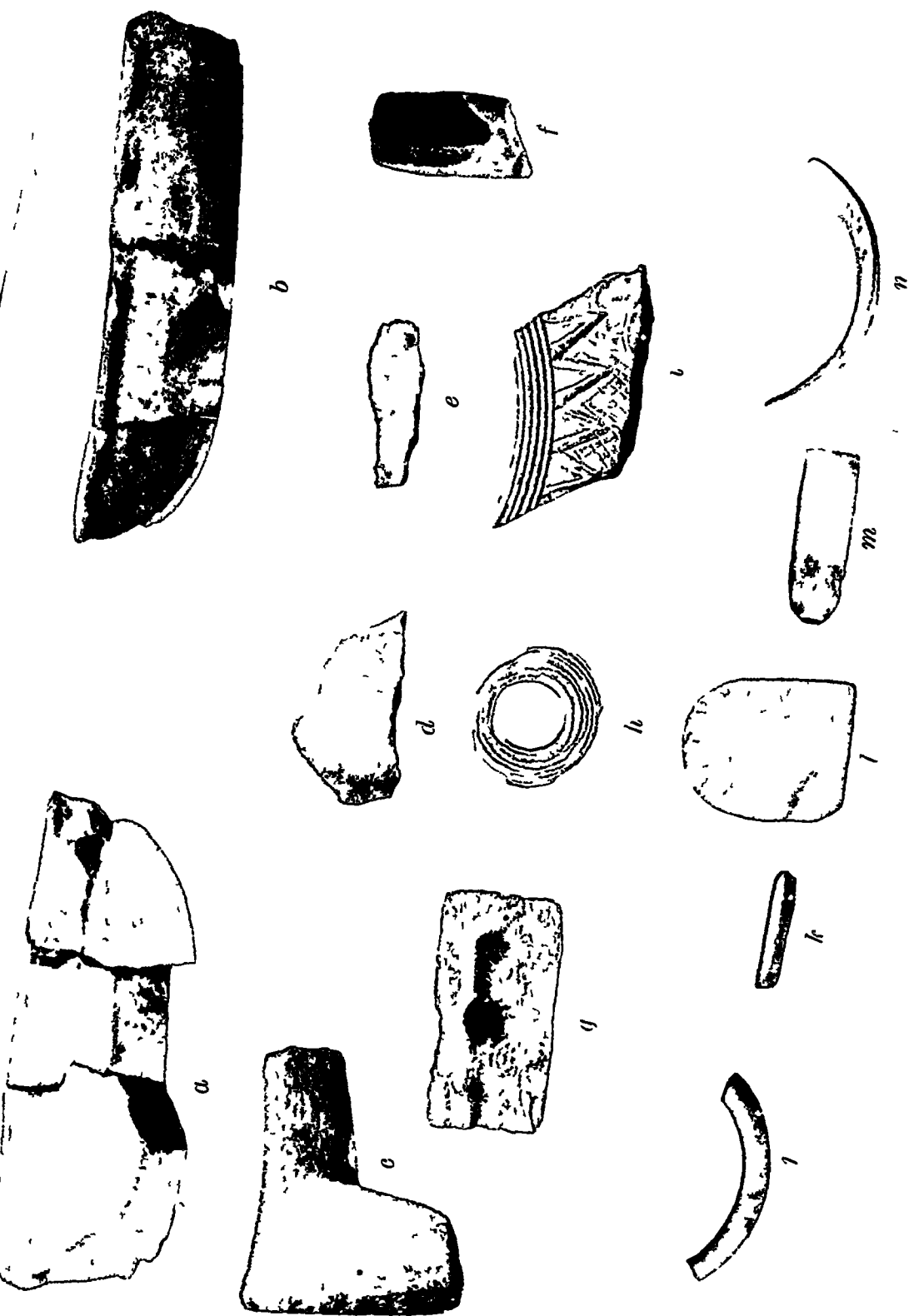




(a) Bījak-kī-Pahāī, Lower platform Circular temple, general view from top of staircase to upper platform



(b) Ditto, from east showing positions and remains of doorways and small bits of *stupa* within





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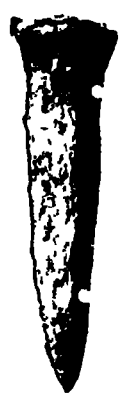
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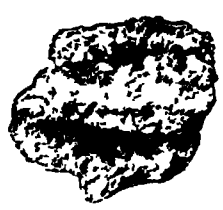
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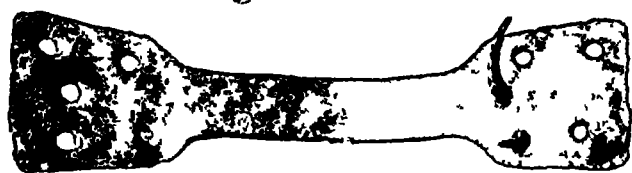
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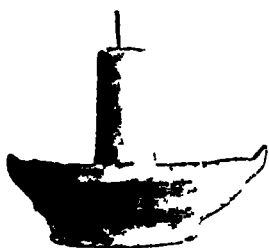
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